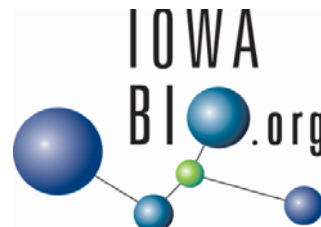


HEARTLAND CIVIC COLLABORATIVE LIFE SCIENCES TASK FORCE

August 2015

Life Sciences Asset Mapping Project



EXECUTIVE SUMMARY

The Heartland Civic Collaborative's ("HCC") Life Sciences Task Force has engaged RubinBrown LLP to perform an assessment of life sciences assets in the four state region consisting of Iowa, Kansas, Missouri, and Nebraska. The purpose of this project is to define a life sciences asset, identify assets meeting that definition, attempt to capture certain types of data on identified assets, catalogue those assets in a database, and summarize the results of those efforts in a written summary report. The project provides HCC and HCC Life Sciences Task Force members with actionable business intelligence to support their missions of growing life sciences activity in the region and to better serve their constituents. This is the first step in the process to provide a comprehensive picture of life sciences industries in the four state region.

To be included for this project, a company or entity had to meet a formal definition of a life sciences asset. For purposes of this project, a life sciences asset was defined – more narrowly than is often found in similar and national industry censuses - as:

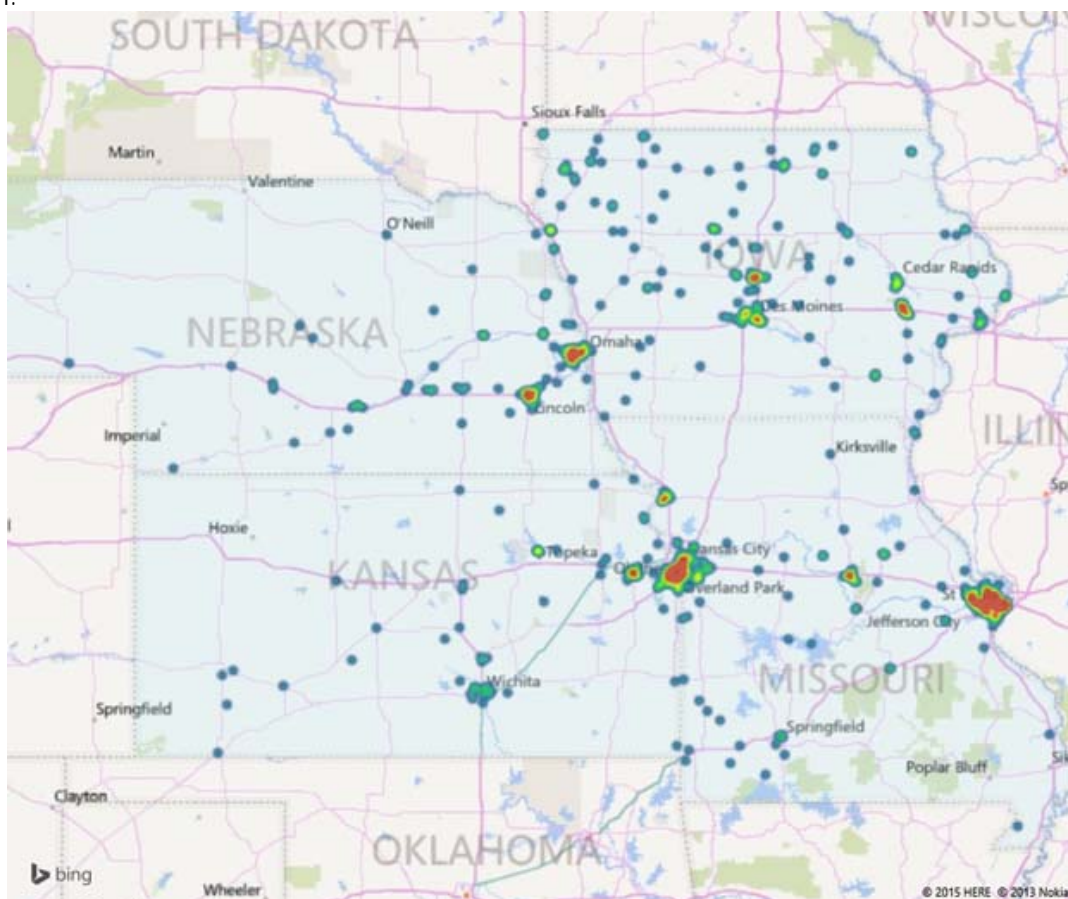
- 1. An organization performing research and development ("R&D") on biological processes primarily focused in human, animal, and plant applications; and/or*
- 2. An organization commercializing R&D output in biological processes primarily focused in human, animal, and plant applications; and/or,*
- 3. An organization that directly supports other companies performing R&D or commercialization but is not conducting such activities itself (i.e., they are directly above or below the organization on the vertical value chain, such as a pharmaceutical ingredient manufacturer supplying pharmaceutical research entities).*

There was no bright line test used for including or excluding potential life sciences assets in this project, indicating some inherent subjectivity in making the determination. There were many life sciences organizations identified that did not meet the definition laid out above.

The identification and data collection efforts on potential life sciences assets took place between September 2014 and April 2015. We identified a total of 791 life sciences assets across the four state region, with at least 976 locations in the region.¹ This excludes 389 university assets within the four state region.² The 791 non-university assets are classified by their primary industry (Agri-business, Animal, Energy, Human, and Plant). The majority of identified assets across the four state region and within each individual state fall under the Human-focused segment.

Overall, the estimated employment within the identified life sciences assets in the four state region is approximately 82,800. Missouri employs approximately 50%, followed by Iowa (24%), Kansas (15%), and Nebraska (11%). The majority of the life science asset locations (approximately 59%) employ 10 or fewer employees, and approximately 90% employ 250 employees or less.

Life Sciences assets are clustered around major population centers in the four state region.



¹ An asset is an organization with a presence in the four state region meeting the working definition described above and is considered one single asset, regardless of how many locations are present in the region. A location is a physical geography occupied by the asset within the four state region. Thus, one asset may have multiple locations within the region. To the extent possible, attempts were made to identify and capture secondary locations in the Life Sciences Asset Database.

² University assets are university research centers that focus on life sciences activities.

Concentrations of assets occur around St. Louis, Missouri; the Greater Kansas City region (Kansas and Missouri); the Omaha/Lincoln, Nebraska corridor; and Des Moines, Iowa. Smaller clusters of activity are present in Cedar Rapids, Iowa; St. Joseph, Missouri; Wichita, Kansas; and Columbia, Missouri. Regional population, presence of research universities, and major highways / highway intersections appear to be prerequisites for concentrations of life sciences assets.

In addition to the 791 identified assets, the region also has a significant number of university assets, identified separately from other life sciences assets. We identified 389 university assets distributed across the four state region: Kansas (95), Iowa (105), Missouri (108), and Nebraska (81).

A survey was employed to assist in identifying life sciences assets in the four state region. A total of 293 individuals responded to the survey on behalf of potential life sciences assets. Of those respondents, 148 met the definition above as life sciences assets. Thus, about 19% of the 791 assets provided data directly via the online survey tool. The remaining assets were identified and data collected through public and proprietary sources.

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INTRODUCTION

Project Background

Purpose

This project was undertaken by the Heartland Civic Collaborative's ("HCC") Life Sciences Task Force to assess life sciences assets in the four state region of Iowa, Kansas, Missouri, and Nebraska.³ The HCC Life Sciences Task Force has engaged RubinBrown LLP to perform an assessment of life sciences assets in the four state region consisting of Iowa, Kansas, Missouri, and Nebraska. HCC seeks to leverage existing assets to build significant research collaboration capacity in the life sciences. Such collaborations likely will span the continuum from basic and translational research through clinical and outcomes research and involve academia and industry partners. Cataloging and classifying the life sciences assets in each State is necessary to effectively identify areas of synergy and opportunity.

The purpose of this life sciences asset mapping project (the "Life Sciences Asset Map Project" or the "Project") is to define a life sciences asset, identify assets meeting that definition, collect defined data points for identified assets, catalogue those assets in a database, and summarize the results of those efforts in a written summary report. Successful project execution provides the HCC with actionable industry intelligence to support its mission of growing life sciences activity in the region and to better serve its constituents.

³ The Heartland Civic Collaborative is a multi-state, multi-metro initiative representing major business organizations in Des Moines, Kansas City, Omaha and St. Louis. Since 2010, business and civic leaders from these four metros have partnered to develop strategic, coordinated actions that strengthen the Heartland's competitiveness in the global economy. Naturally, each metropolitan area continues to compete fiercely for growth and development within its own boundaries; thus, efforts of the HCC focus on key resource and issue areas where broad collaboration will add value or reduce risk for the entire region while allowing the individual metros to flourish. HCC priority areas currently identified are: Transportation, Connectivity, Life Sciences, and Federal Advocacy. Members of the HCC include The Civic Council of Greater Kansas City, the Greater Omaha Chamber of Commerce, the Greater Des Moines Partnership, the Greater Kansas City Chamber, and the St. Louis Regional Chamber. The HCC has a working Task Force for each of the four priority areas.

Project Stakeholders

Project Stakeholders include members of the HCC Life Sciences Task Force:

- BioSTL
- BioNebraska Life Sciences Association (“BioNebraska”)
- Greater Des Moines Partnership
- Greater Omaha Chamber of Commerce
- Iowa Biotechnology Association (“IowaBio”)
- Kansas Bioscience Organization (“BioKansas”)
- Kansas City Area Life Sciences Institute
- Missouri Biotechnology Association (“MOBIO”)
- Missouri Technology Corporation
- Pharmaceutical Research and Manufacturers of America (“PhRMA”)
- The Civic Council of Greater Kansas City

Project Stakeholders were extensively involved throughout the Project, defining the overall Project scope, providing existing source data, defining a life sciences asset (for purposes of this Project), helping to promote and facilitate the survey, and providing project oversight and guidance.⁴

Defining a Life Science Asset

There are different methodologies used to identify, define, or classify a company or entity within an industry or sector.

The Merriam-Webster dictionary defines life science as “a branch of science (biology, medicine, and sometimes anthropology or sociology) that deals with living organisms and life processes...”⁵

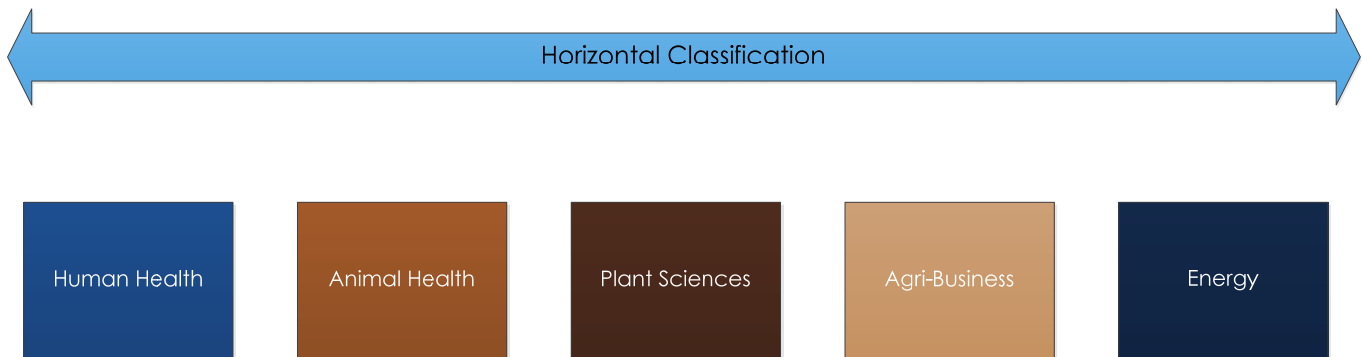
⁴ We would also like to acknowledge the support and contributions to this project by St. Louis Makes.

⁵ www.merriam-webster.com/dictionary/life%20science. Accessed 5.12.2015.

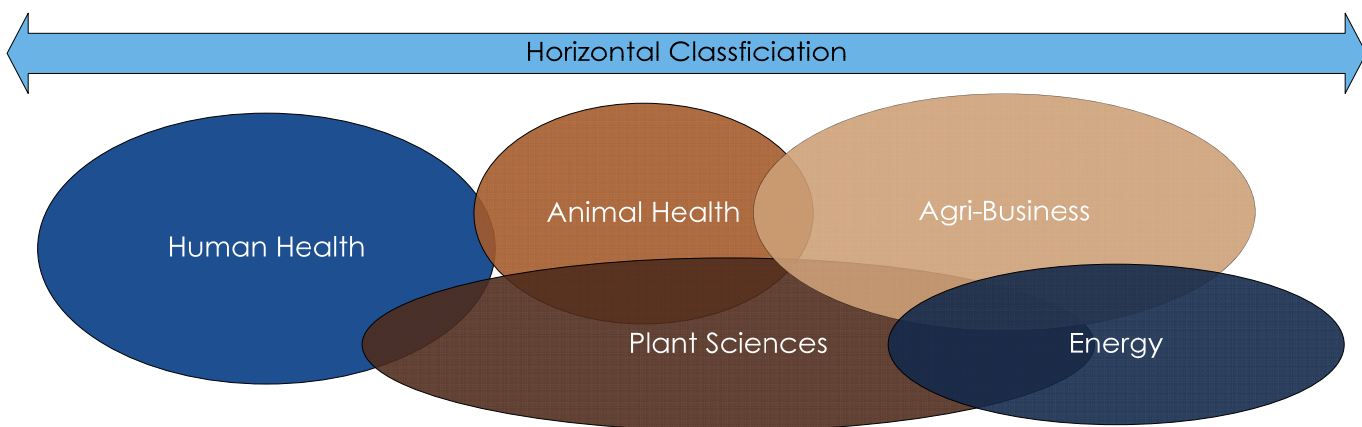
Many studies have utilized Standard Industrial Classification (“SIC”) and/or North American Industrial Classification System (“NAICS”) codes to classify organizations within a definition of the life sciences industry. While useful as a frame of reference, they are limited by being self-assigned by individual companies and notorious for identifying a broad range of companies well beyond the intended scope of the category classification.

For this project, life sciences assets were defined by considering the industry and industry activities both horizontally and vertically.

Horizontally – potential life sciences assets were classified horizontally by the general markets (referred to as segments for the Project) in which the asset primarily concentrates. These segments include:

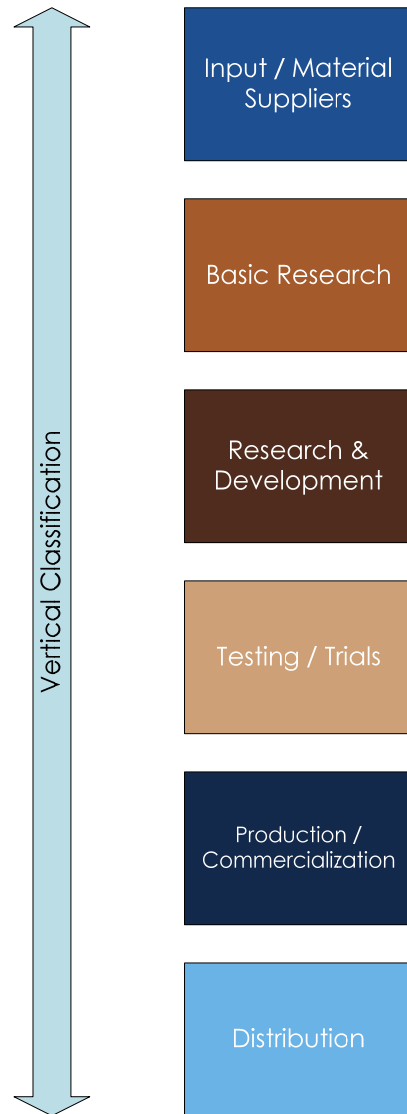


In practice, there is a significant degree of overlap within the industry; identified assets do not often fit neatly in any single box. Often an asset classified in one segment could have activities and operations that would properly be considered in another segment. For example, there is a high degree of overlap among Plant Sciences segment assets and Agri-Business segment assets.

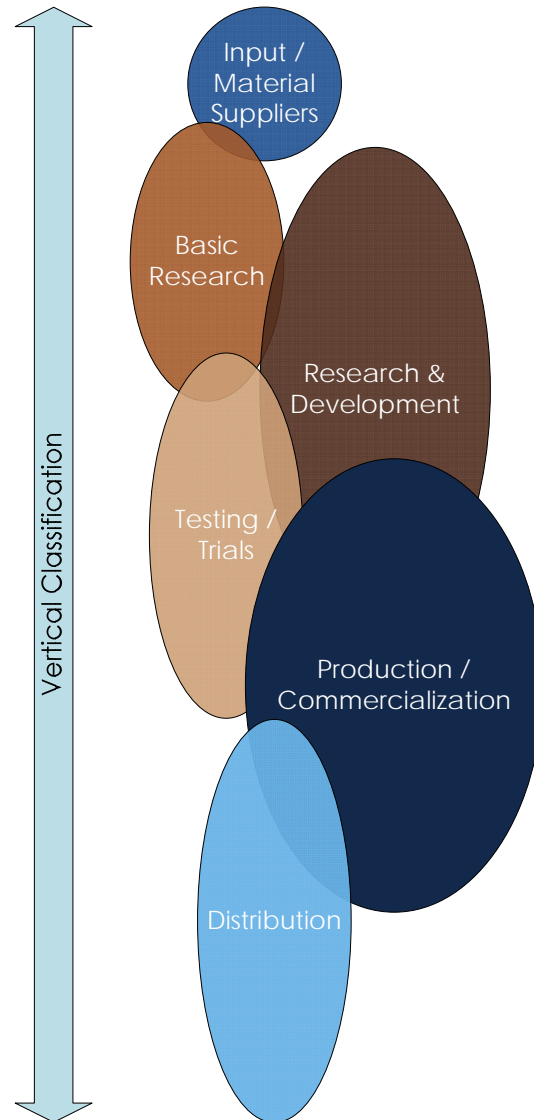


While end markets and areas of focus provide one dimension for classification of a life sciences asset, it is not the only relevant dimension. We also looked at the primary activities the asset is engaged in performing (such as research and development).

Vertically – potential life sciences assets were classified vertically by the types of activities undertaken and by where in the value/supply chain the asset operates. These activities may include, but are not limited to:



Like the horizontal classification, the vertical asset classification shows many overlapping activities rather than clear lines of demarcation.



As explained further below in the Methodology & Work Performed section, survey respondents self-selected both their company's segment (the horizontal classification) and their company's activities (the vertical classification). For assets without a self-selection, the Project team used alternative methods to assign classifications.

Our Working Definition

For purposes of this Project, a life sciences asset was defined as:

1. *An organization performing research and development (“R&D”) on biological processes primarily focused in human, animal, and plant applications; and/or*
2. *An organization commercializing R&D output in biological processes primarily focused in human, animal, and plant applications; and/or,*
3. *An organization that directly supports other companies performing R&D or commercialization but is not conducting such activities itself (i.e., they are directly above or below the organization on the vertical value chain, such as a pharmaceutical ingredient manufacturer supplying pharmaceutical research entities).*

There was no bright line test used for including or excluding potential life sciences assets in this Project, indicating some inherent subjectivity in making the determination. There were many life sciences organizations identified that did not meet the definition outlined above. For example RubinBrown, a professional services provider with a dedicated Life Sciences Services Group did not meet the working definition utilized for this Project, and therefore was not identified as a life sciences asset. Similarly, certain health care providers and related entities, which may be part of the life sciences value chain, were considered to be too far down the vertical value chain to be included as a life sciences asset. Provider offices (i.e., physicians) or diagnostics labs (primarily serving health care providers) are other examples of companies that did not meet the project definition.

Lastly, an organization with a presence in the four state region meeting the life sciences definition above was considered a single asset, regardless of the number of individual locations present in the region. Either the headquarters location or the company’s designated primary point of contact was used to designate a “primary” location for assets with multiple locations in the region. To the extent possible, secondary locations were captured in the Life Sciences Asset Database.

Methodology & Work Performed

The primary phases of this Project included the following activities:

1. Project scoping
2. Preliminary asset identification and data collection
3. Survey process
4. Data assimilation
5. Direct follow-up
6. Preparation of deliverables

Project Scoping

The Project launched with group and individual project scoping discussions in order to reach consensus on project breadth, depth, and deliverables. RubinBrown hosted a series of discussions with Project Stakeholders to delineate: the targeted life sciences industry, a definition of a life sciences asset, desired asset data points, and deliverables. Completing this phase provided key insights into individual Project Stakeholder's objectives and established a collective Project direction.

The primary outcomes of the Project Scoping Phase were:

1. Defining a life sciences asset (see above section Defining a Life Sciences Asset);
2. Identifying the "Final Data Fields" (see Appendix 2), which were the data points to be captured for the identified assets;
3. Entering into a "Data Sharing & Usage Agreement" which describes the agreed upon usage of data collected and assimilated during the Project (see Appendix 1); and
4. Creating a marketing message for the Project in general and the Survey Process in particular.

Completion of scoping discussions led to collecting and consolidating existing data sources.

Preliminary Asset Identification and Data Collection

The next Project phase was the identification of companies and related assets considered life sciences assets within the four state region of Iowa, Kansas, Missouri, and Nebraska. The preliminary identification process utilized multiple approaches and data sources. Project Stakeholders provided databases and various reports containing asset data that complemented public and commercial database searches and information resources including:

- Dun & Bradstreet Company's Hoover's database;
- Sorkins Directories Inc.'s Sorkins Directory;
- Kansas City Area Life Sciences Institute's Kansas City Regional Life Sciences Industry Census – 2012;
- BioResearch Central's Company Directory; and
- Various economic development, incubator, and related information sources.

Searches of commercial databases utilized the following NAICS codes:

<u>2012 US NAICS Code</u>	<u>NAICS Code Description</u>
311119	Other Animal Food Manufacturing
311221	Wet Corn Milling
311224	Soybean and Other Oilseed Processing
324110	Petroleum Refineries
325193	Ethyl Alcohol Manufacturing
325199	All Other Basic Organic Chemical Manufacturing
325311	Nitrogenous Fertilizer Manufacturing
325312	Phosphatic Fertilizer Manufacturing
325314	Fertilizer (Mixing Only) Manufacturing
325320	Pesticide and Other Agricultural Manufacturing
325411	Medicinal and Botanical Manufacturing
325412	Pharmaceutical Preparation Manufacturing
325413	In-Vitro Diagnostic Substance Manufacturing
325414	Biological Product (except Diagnostic) Manufacturing
333249	Other Industrial Machinery Manufacturing
334510	Electromedical and Electrotherapeutic Apparatus Manufacturing
334513	Instruments and Related Products Manufacturing for Measuring, Displaying, and Controlling Industrial Process Variables
334516	Analytical Laboratory Instrument Manufacturing
334517	Irradiation Apparatus Manufacturing
339112	Surgical and Medical Instrument Manufacturing
339113	Surgical Appliance and Supplies Manufacturing
339114	Dental Equipment and Supplies Manufacturing
339116	Dental Laboratories
423450	Medical, Dental, and Hospital Equipment and Supplies Merchant Wholesalers
541380	Testing Laboratories
541711	Research and Development in Biotechnology
541712	Research and Development in the Physical, Engineering, and Life Sciences (except Biotechnology)
541720	Research and Development in the Social Sciences and Humanities
621511	Medical and Laboratories
631512	Diagnostic Imaging Centers

After collecting information from these various sources, data was combined into one preliminary asset database. Each asset had some combination of the following data fields: asset name, asset location, contact information, NAICS code, SIC code, website, general description, industry segment, sales, and employment.

After initial compilation of the preliminary asset database, the database was refined by removing duplicate assets and collecting email contact information to facilitate the survey phase.

Survey Process

A survey tool was developed reflecting the key data points identified by Project Stakeholders as primary and secondary priorities (see Appendix 2, Final Data Fields). The Project Stakeholders also developed parameters for sharing and using collected data captured in the Data Sharing and Usage Agreement (see Appendix 1). The survey was distributed via the commercial web-based provider SurveyMonkey. Project Stakeholders each received and refined email distribution lists based on their respective geographies, and then solicited survey participation through an email request consisting of a participation request, survey instructions (see Appendix 3 – Survey Instructions), and links to the survey. Survey solicitation occurred in three rounds over the course of approximately three months. After the three rounds of solicitation from Project Stakeholders, RubinBrown performed direct follow-up phone calls and conducted outreach to local economic development agencies and local chambers of commerce to generate additional survey responses.

A total of 293 total responses to the survey were received. Data collected from the responses were integrated into the preliminary asset database.

Data Assimilation, Populating, and Cleansing

Survey response data was combined with the data in the preliminary asset database and subsequently subjected to the following procedures:

1. Combined duplicate asset data to ensure maximum coverage for data fields for each identified asset;
2. Performed follow-up research on assets where the location, segment, sub-segment, and focus data was not populated via survey, commercial databases, and/or Project Stakeholder provided data sources. Web-based searches, LinkedIn, and other publicly available sources were utilized to verify the assets existence (as of early 2015) and to populate location, segment, sub-segment, and focus where necessary.
3. Eliminated assets in the database for the following reasons:
 - a. Did not meet the Project's working definition (see above) of a life sciences asset;
 - b. Was identified as a university or government related asset;⁶
 - c. No identified presence in the four state region of Iowa, Kansas, Missouri, or Nebraska;
 - d. Duplicated, or related to, another identified asset in the database; and/or
 - e. Could not verify existence of asset.

⁶ We recognize universities and other public entities as critical entities within the region's life sciences industry. However, university assets are unique, and determining employment, sales (if any), research focus and activity data for these assets was beyond the scope of the Project. A separate listing of university assets is included in this report as Exhibit 4.

After performing these steps, the Life Sciences Asset Database contained 791 unique life sciences assets, which occupy 976 locations across the four state region. Of those 791 assets, 148 (19%) participated in the online survey.⁷

Differences from Prior Studies and Databases

The present study is not the first to quantify life sciences / bio-related activity in the region. A number of other organizations have performed studies seeking to quantify activity and/or identify life sciences assets in various regions for a variety of purposes.⁸

While there are similarities between those efforts and this Project in terms of objectives and scope, there are some key methodological differences that prevent direct comparison of datasets and key findings. A key differentiating factor is the definition used to identify a life sciences asset in the current study, with two key points of distinction:

1. NAICS / SIC vs. Project Working Definition: Many studies utilize a set of NAICS and/or SIC codes to define a life sciences asset. This Project did not define a life sciences asset along those dimensions. Project Stakeholders expressed a desire to have a more precise and refined definition for purposes of this Life Sciences Asset Mapping Project. Utilizing a predetermined set of NAICS / SIC codes alone would have resulted in a universe of life sciences assets too broad for Project Stakeholder purposes.
2. Establishment vs. Asset: Another dimension many studies use is number of establishments to measure activity / industry clusters. An establishment is a single location (as opposed to a single entity). Thus, a single life sciences asset may have multiple locations, or establishments across a predetermined region. If the study is using establishments in its definition, then each establishment will be identified as a separate asset. This project chose to classify an asset at the entity level. Thus, even if an asset has multiple locations / establishments across the four state region, it was only counted once as a life sciences asset.

These are the two areas of distinction that will create differences among the type and amount of life sciences assets identified in this Project versus other inquiries.

⁷ 145 survey respondents were excluded from the final Life Sciences Asset Database for the reasons listed above (see page 15, 3.a – 3.e).

⁸ For example, Battelle / BIO partner to assess bio-sciences activity by state in a biennial study. See: <https://www.bio.org/articles/battellebio-state-bioscience-jobs-investments-and-innovation-2014>.

SUMMARY OF FINDINGS

What does the database tell us

Regional Overview

As of April 30, 2015, the HCC Life Sciences Asset Database contained 791 distinct life sciences entities (exclusive of university assets / research centers), spread across 976 locations in the four state region.

By state, the asset and locational distribution is as follows:

TABLE 1: NUMBER OF LIFE SCIENCES ASSETS, BY SEGMENT & REGION

	<u>Iowa</u>	<u>Kansas</u>	<u>Missouri</u>	<u>Nebraska</u>	<u>Total</u>
<u>Agri-business</u>	43	22	22	32	119
<u>Animal</u>	32	30	34	21	117
<u>Energy</u>	15	4	7	10	36
<u>Human</u>	61	111	262	40	474
<u>Plant</u>	15	4	24	2	45
<u>Total</u>	166	171	349	105	791

TABLE 2: PERCENTAGE DISTRIBUTION (ACROSS 4 STATE REGION) OF LIFE SCIENCES ASSETS, BY SEGMENT & REGION

	<u>Iowa</u>	<u>Kansas</u>	<u>Missouri</u>	<u>Nebraska</u>	<u>Total</u>
<u>Agri-business</u>	5%	3%	3%	4%	15%
<u>Animal</u>	4%	4%	4%	3%	15%
<u>Energy</u>	2%	1%	1%	1%	5%
<u>Human</u>	8%	14%	33%	5%	60%
<u>Plant</u>	2%	1%	3%	0%	6%
<u>Total</u>	21%	22%	44%	13%	100%

Note: Numbers may not add due to rounding.

These life sciences distributions are consistent with the overall distribution for all industries across these states (as reported by the U.S. Census Bureau).

TABLE 3: DISTRIBUTION OF TOTAL FIRMS, ESTABLISHMENTS, AND EMPLOYMENT, BY REGION

	<u>Iowa</u>	<u>Kansas</u>	<u>Missouri</u>	<u>Nebraska</u>	<u>Total</u>
<u>Number of Firms</u>	62,724	58,159	113,678	42,029	276,590
<u>Number of Establishments</u>	80,649	73,944	146,604	52,294	353,491
<u>Employment</u>	1,293,694	1,134,216	2,320,239	818,289	5,566,438
	<u>Iowa</u>	<u>Kansas</u>	<u>Missouri</u>	<u>Nebraska</u>	<u>Total</u>
<u>Number of Firms</u>	23%	21%	41%	15%	100%
<u>Number of Establishments</u>	23%	21%	41%	15%	100%
<u>Employment</u>	23%	20%	42%	15%	100%

Source: U.S. Census Bureau, 2012 County Business Patterns, released 1/23/2015.

Tables 1 and 2 show that life sciences activity is heavily concentrated in the human segment, accounting for 60% of the assets identified. Agri-Business and Animal are the second largest life sciences segments identified as part of this Project, each accounting for 15% of the assets identified.

On a state by state basis, each respective state has its own individual areas of relative strength and segment concentration:

TABLE 4: NUMBER AND PERCENTAGE DISTRIBUTION (ACROSS INDIVIDUAL STATES) OF LIFE SCIENCES ASSETS, BY SEGMENT & REGION

	<u>Iowa</u>		<u>Kansas</u>		<u>Missouri</u>		<u>Nebraska</u>	
<u>Agri-business</u>	43	26%	22	13%	22	6%	32	30%
<u>Animal</u>	32	19%	30	18%	34	10%	21	20%
<u>Energy</u>	15	9%	4	2%	7	2%	10	10%
<u>Human</u>	61	37%	111	65%	262	75%	40	38%
<u>Plant</u>	15	9%	4	2%	24	7%	2	2%
<u>Total</u>	166	100%	171	100%	349	100%	105	100%

Note: Numbers may not add due to rounding.

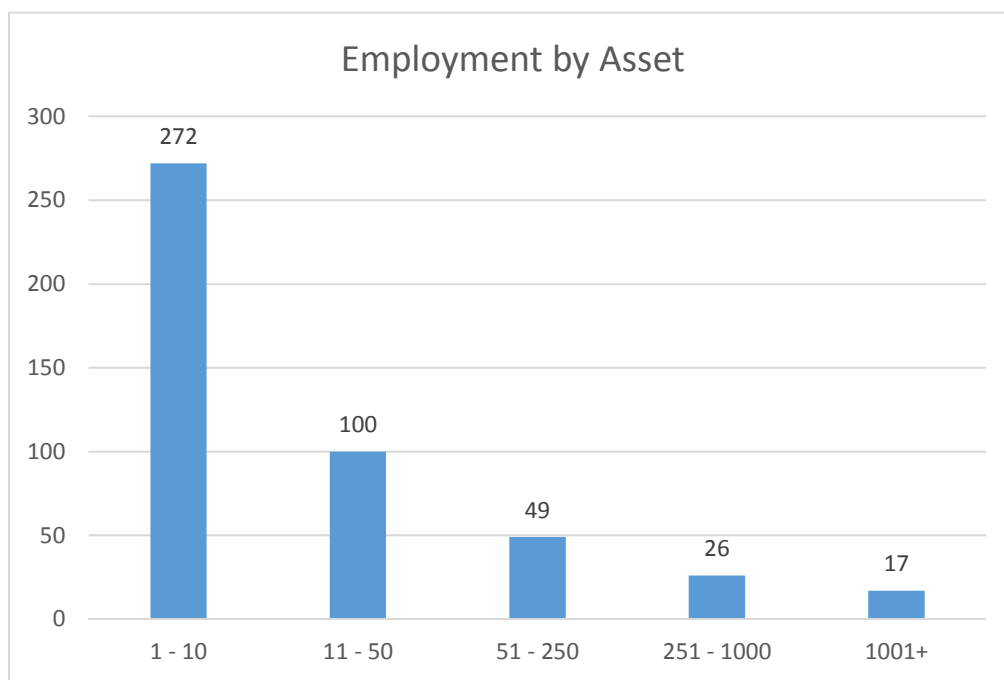
Table 4 reveals that Missouri and Kansas are more concentrated in the human life sciences industry segment (75% and 65% of all life sciences assets identified, respectively) while Iowa and Nebraska have a relatively more even distribution of life sciences activity. The human segment is still the leading segment, but as a percentage of total life sciences assets it is much lower than in Missouri and Kansas.

Employment

We captured Total Employment data for 464 (59% of total assets) of the identified Life Sciences assets. These assets employ approximately 192,000 individuals.⁹

The employment totals are skewed however by some of the larger entities captured in the study (for example, Monsanto has over 21,000 employees across its entire organization, of which many are located outside the four state region). The distribution of assets by Total Employees is as follows:

FIGURE 1: NUMBER OF ASSETS, BY TOTAL EMPLOYMENT



As shown, the vast majority of assets (over 90%) are smaller organizations with 250 employees or fewer. Fifty-nine percent of assets for which we have Total Employment data have ten or fewer employees.

Life sciences asset employment levels within each state were also estimated. Table 5 shows the estimated employment across states.

⁹ Please note that the Total Employment figures include employment outside of the four state region in this Project.

TABLE 5: ESTIMATED IN-STATE EMPLOYMENT BY IDENTIFIED LIFE SCIENCES ASSETS

	<u>IA</u>	<u>KS</u>	<u>MO</u>	<u>NE</u>	<u>Total Region</u>
<u>Estimated Employment</u>	19,600	12,200	41,500	9,500	82,800
<u>Number of Asset Locations in State</u>	221	199	414	142	976
<u>Average Employment</u>	89	61	100	67	85
<u>Employment Distribution</u>	24%	15%	50%	11%	100%
<u># of Assets Reporting State Employment</u>	20	25	53	32	130
<u>% of Assets Reporting State Employment</u>	12%	15%	15%	30%	16%

A conservative overall employment estimate for the identified life sciences assets in the four state region is 82,800 individuals. One-hundred thirty assets reported employment levels for their respective state locations. Total in-state employment was estimated utilizing the reported data for state employment, and an extrapolation method was used to estimate employment based on the number of life sciences asset locations.¹⁰ By state, the estimated life sciences employment distribution is consistent with overall state employment distribution (see Table 3 above), with some deviations. Iowa and Missouri have the highest concentrations of life sciences employment.

These organizations also tend to have a highly educated workforce. One-hundred twenty assets provided the education level of their workforce. Over half reported that the typical educational level was post-graduate or doctoral level. Over 93% of reporting assets' workforce had a bachelor's degree or higher.

¹⁰ Locations were categorized by employment size (1 – 10, 11 – 50, 51 – 250, 251 – 1000, and 1000+) and then average employment was calculated for each employment category. These results were then extrapolated for each state. For example, identified assets reported 7 locations in Iowa with 1 – 10 employees, employing a total of 33 employees, or an average of 4.7 per location. Assets also reported a total of 221 locations, 35% of which are estimated to have 1 – 10 employees (prorated based on the reported data). Therefore there are an estimated 77 locations (35% of 221 locations) in Iowa employing 1 – 10 employees at an average of 4.7 per location, for total employment of 365 for that classification. The same method was used for each classification level except the 1000+, which seemed to have a much higher representation than the lower employment categories. Therefore, actual reported data was used for the 1000+ employment category without extrapolating the results. The same methodology was used for each state.

TABLE 6: TYPICAL WORKFORCE EDUCATION

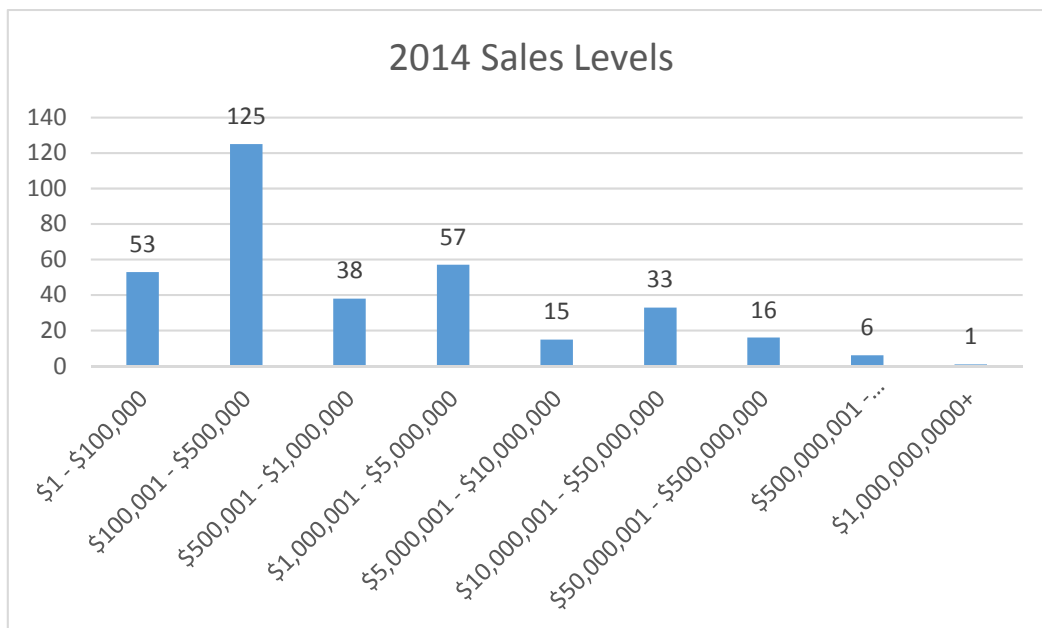
Degree Types	# of Assets	% of Assets
High school / GED	8	7%
Bachelor's	48	40%
Post Graduate (e.g. MS, MA)	45	38%
Doctorate (M.D., PhD)	18	15%
Total	119	100.0%

Eighteen percent (21 out of the 120) of these assets also indicated a desire for a higher education level within its workforce (for example, an asset with an Average Workforce Education level of a bachelor’s degree but desires post graduate degrees would be included in this group). The needs for a higher education level were relatively evenly distributed among the three post-high school education classifications.

Sales Activity

Sales data for 2014 was estimated for 344 assets in the database. These 344 assets represented combined sales of \$28.2 billion dollars in 2014. The majority of assets with sales data indicate sales levels of \$1.0 million or less:

FIGURE 2: NUMBER OF ASSETS, BY LEVEL OF 2014 SALES \$



As shown, 63% of the assets have sales lower than \$1 million in 2014.¹¹ Eighty-four percent have sales lower than \$10 million. Only 16% have sales that exceed \$10 million, and majority of those are in the \$10 million to \$50 million sales range.

¹¹ These figures do not include pre-revenue assets or assets with no sales data.

R&D Activity

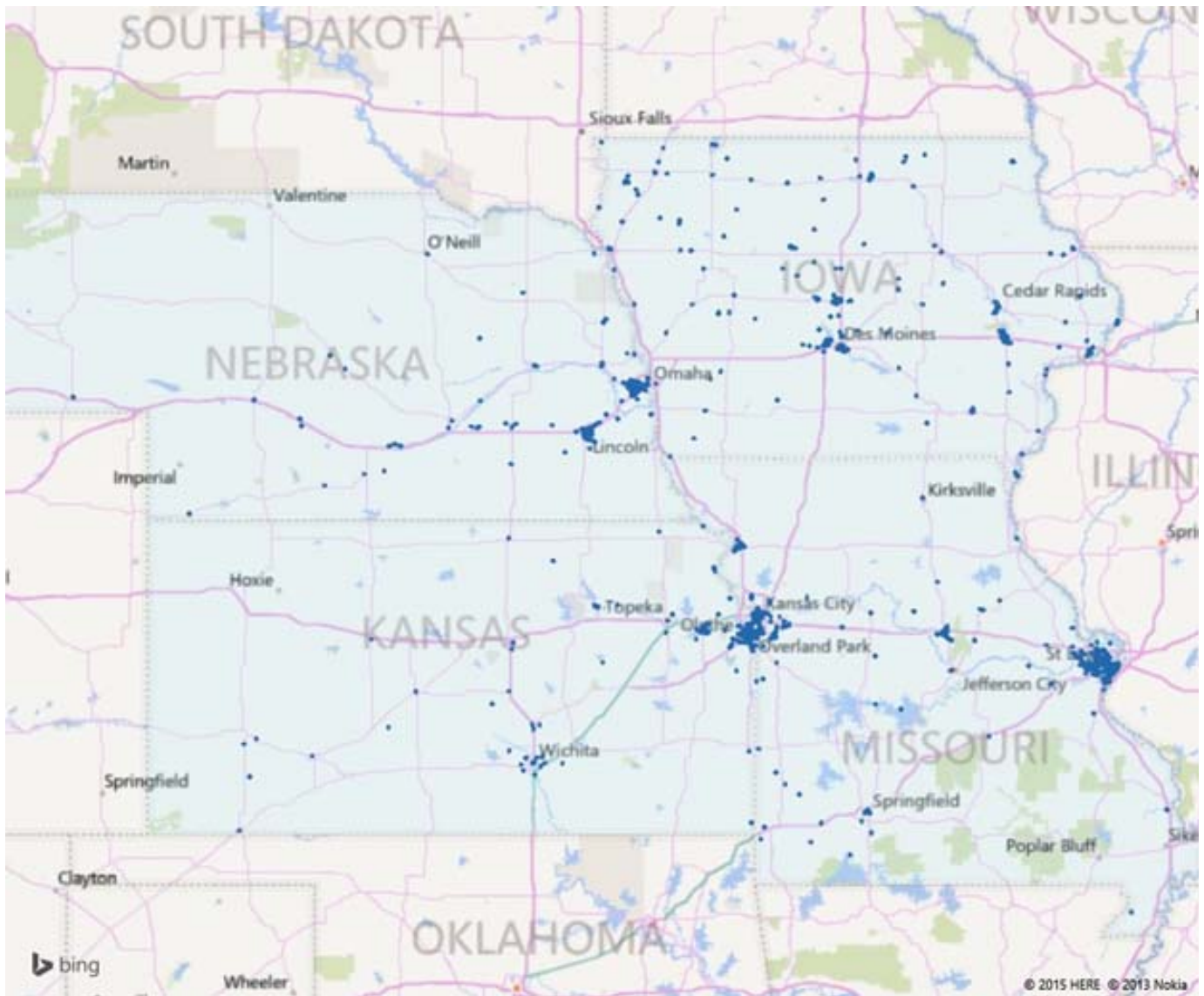
Sixty-eight assets reported 2014 research and development expenditures. Total expenditures were \$2.1 billion. The median level of 2014 R&D expenditures was \$387,500.

Asset Maps

Cluster analysis

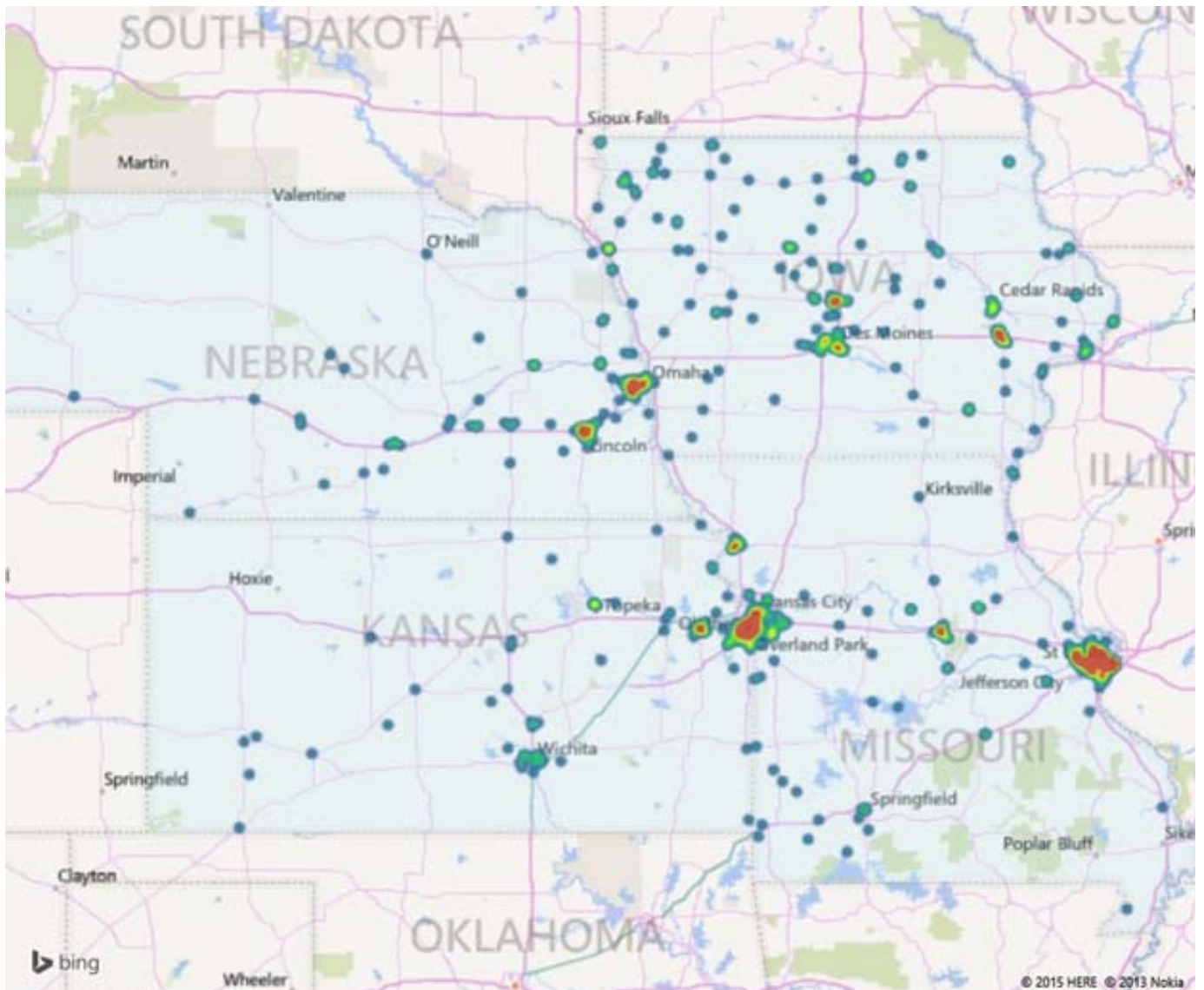
As shown in Map 1 below, assets are spread virtually throughout the entire four state region, with some pronounced concentrations in certain regions. Assets tend to cluster around the major population centers within the region, notably St. Louis, Kansas City, Omaha, and Des Moines.

MAP 1 - ALL ASSETS ACROSS 4-STATE REGION



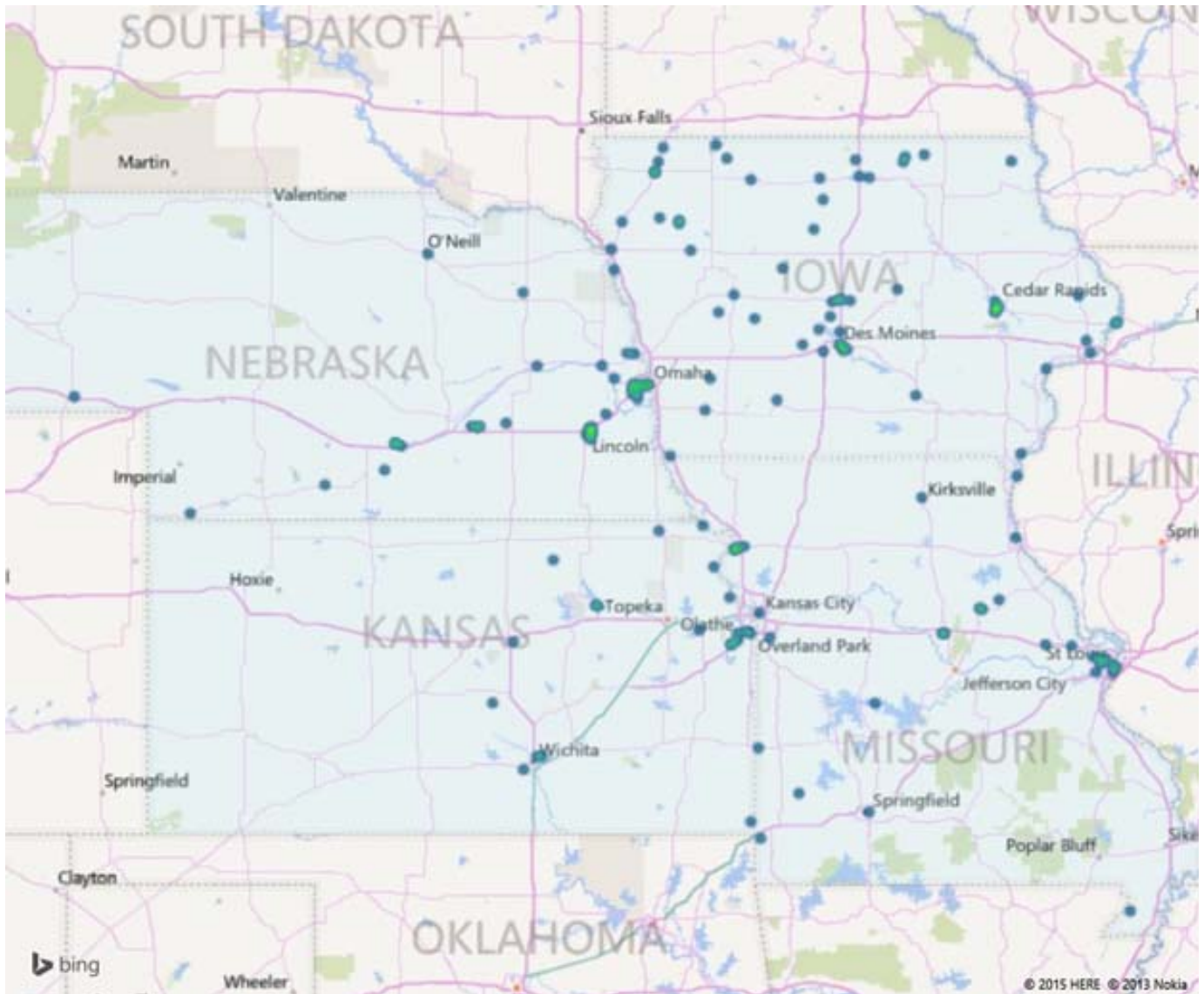
The following heat map highlights these clusters more clearly. Again the St. Louis and Kansas City regions have the highest concentrations of life sciences assets, and the map indicates that Des Moines, IA; Omaha, NE; Cedar Rapids, IA (in particular the corridor south to I-80); Lincoln, NE; and Columbia, MO also have pronounced pockets of activity.

MAP 2 - ALL ASSETS ACROSS 4-STATE REGION – HEAT MAP



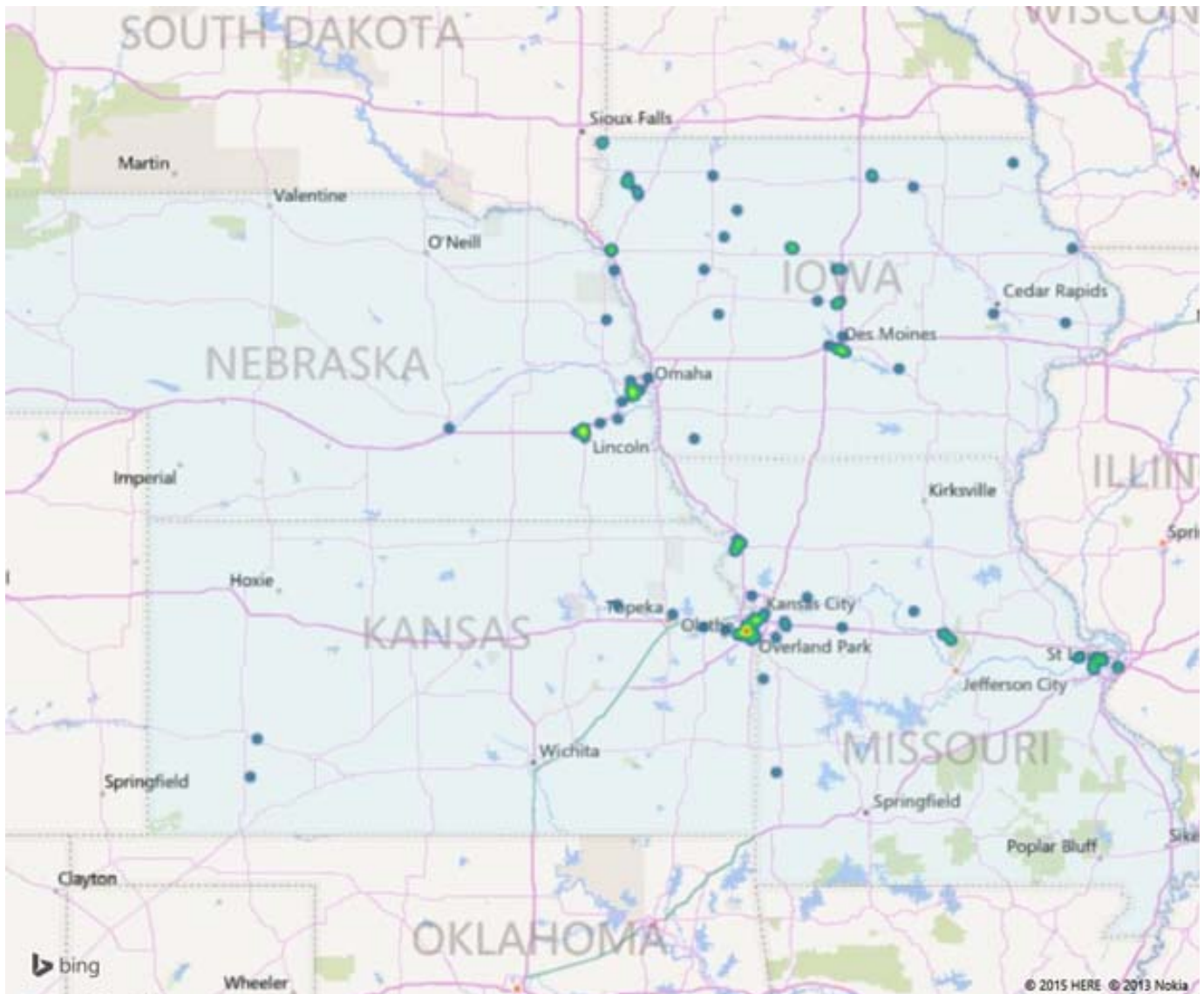
Looking at the heat maps by industry segment, it becomes apparent where the relevant segment clusters are centered.

MAP 3 - AGRI-BUSINESS SEGMENT ACROSS 4-STATE REGION



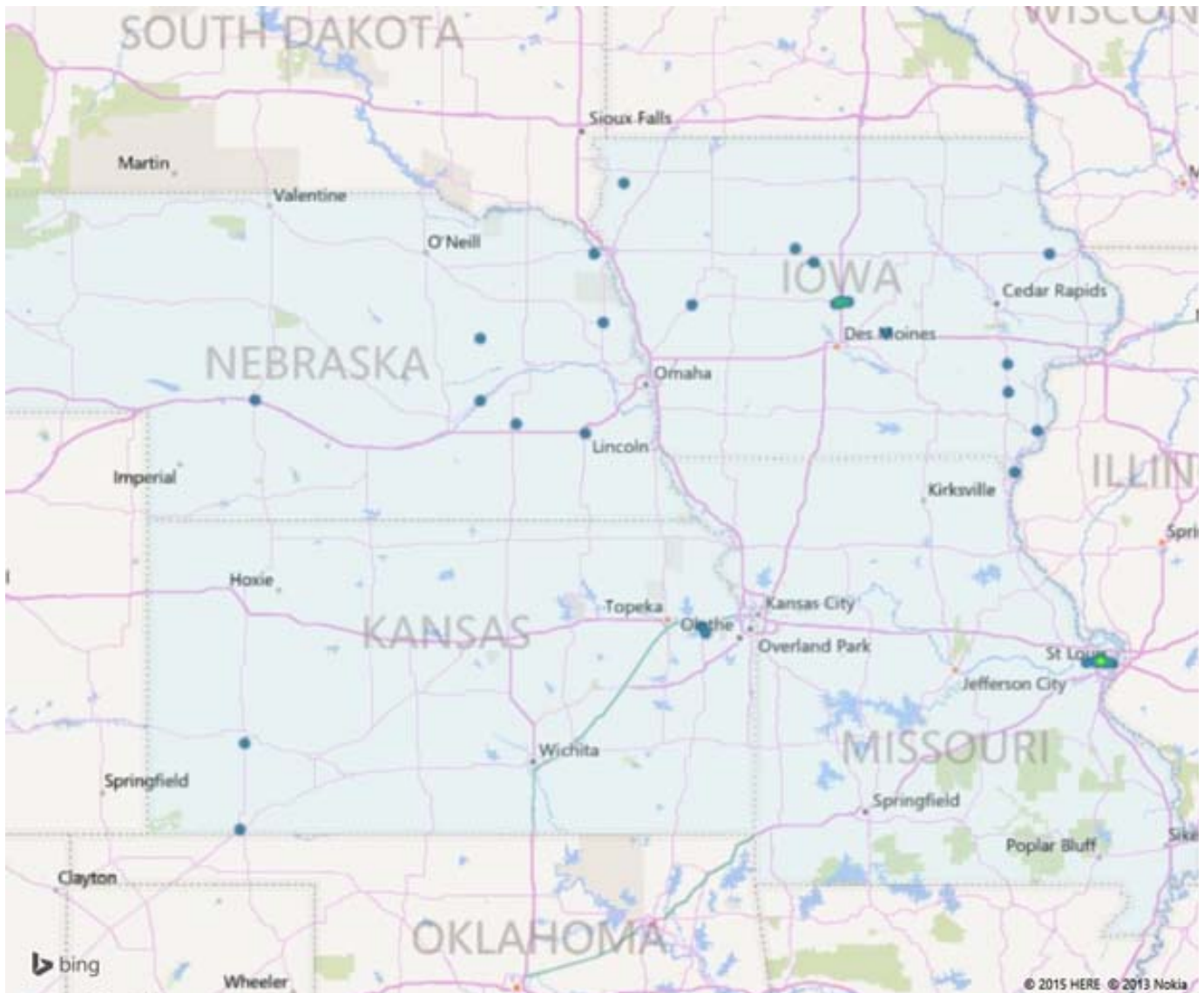
Agri-business is one of the more geographically disbursed segments, with no clear area having a significantly larger presence than another throughout the four-state region.

MAP 4 - ANIMAL SEGMENT ACROSS 4-STATE REGION



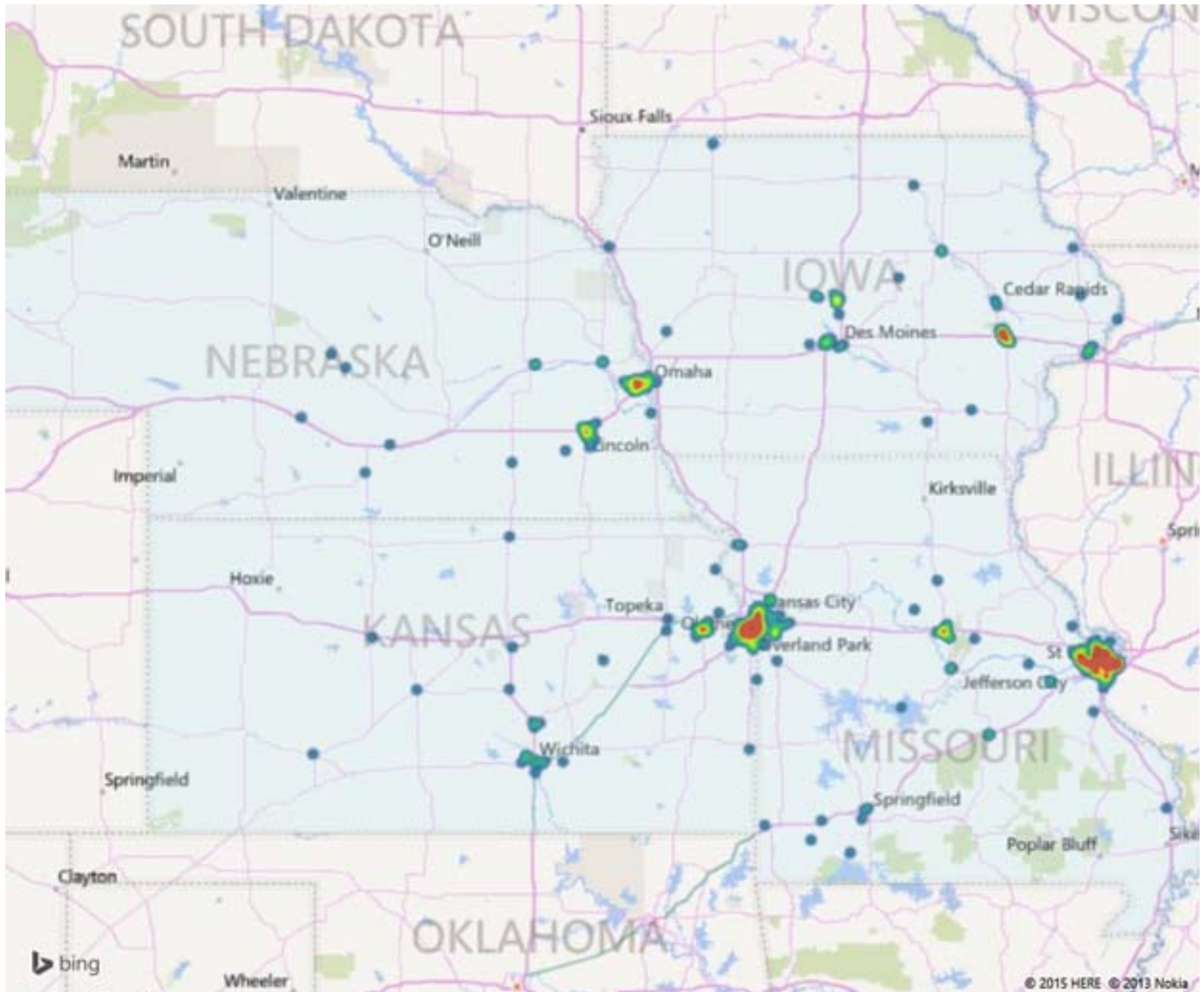
The animal segment is concentrated in the greater Kansas City region (both Kansas and Missouri) extending north up to St. Joseph, Missouri area. The Omaha, Nebraska to Lincoln, Nebraska corridor also has pronounced presence in this segment.

MAP 5 - ENERGY SEGMENT ACROSS 4-STATE REGION



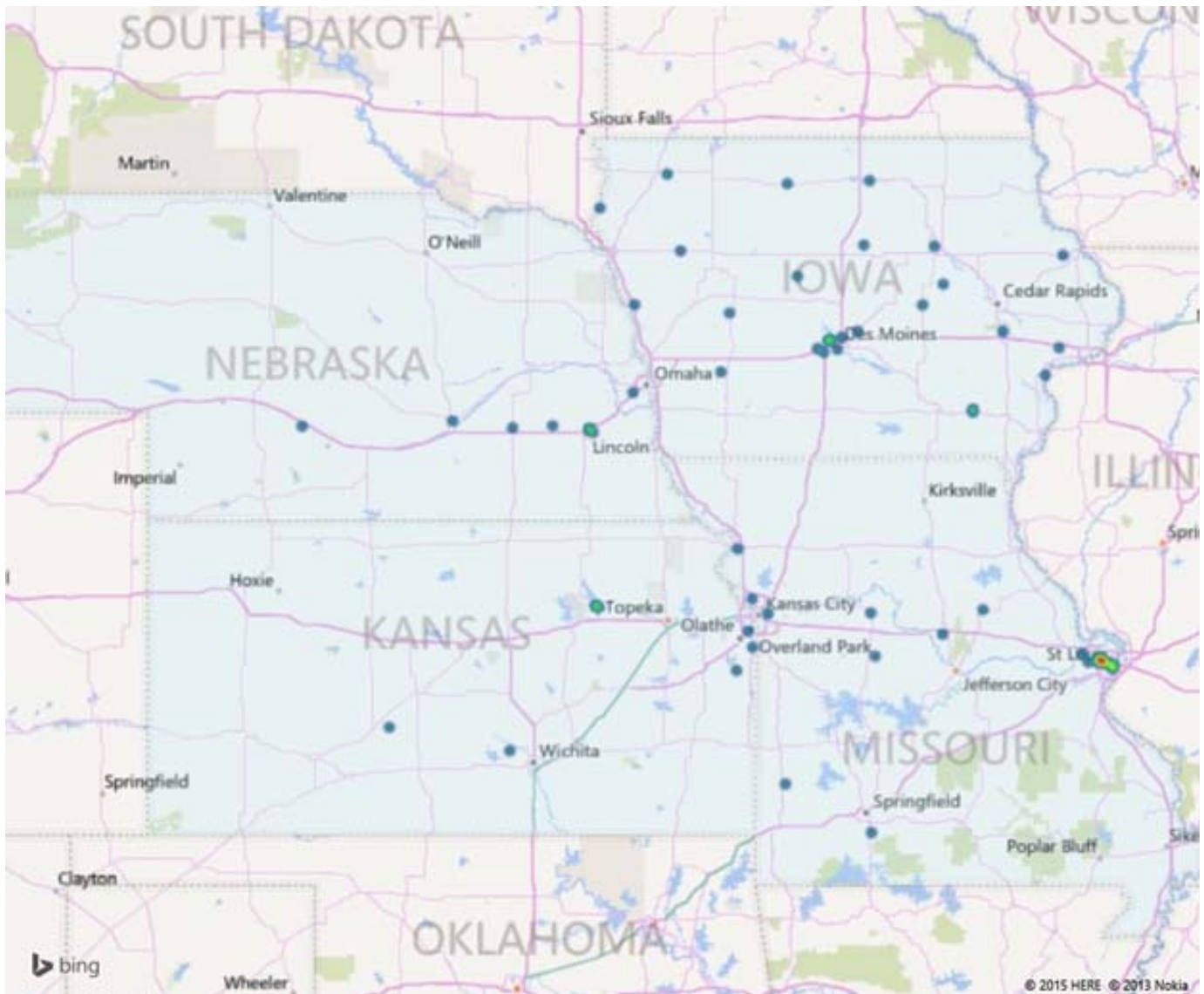
Relative to other segments, the energy segment does not have a significant presence in the four state region.

MAP 6 - HUMAN SEGMENT ACROSS 4-STATE REGION



The human segment is concentrated around the population centers, with St. Louis, Missouri and the greater Kansas City region (Kansas and Missouri) having the heaviest presence, followed by Omaha, Nebraska, and the I-80 corridor south of Cedar Rapids, IA.

MAP 7 - PLANT SEGMENT ACROSS 4-STATE REGION



The plant segment, like the related agri-business segment is relatively evenly distributed across the region, but there is a pronounced concentration in the St. Louis, Missouri region.

EXHIBITS 1 – 3: IDENTIFIED ASSETS (791 ENTITIES)

EXHIBIT 1: AGRI-BUSINESS / ENERGY / PLANT SCIENCES SEGMENTS (200 Entities)

EXHIBIT 1.A: IOWA – AGRICULTURAL – PLANT GENETICS / RESEARCH, TESTING & MED LABS (13)

<u>Company</u>	<u>State</u>	<u>City</u>	<u>Segment</u>	<u>Sub-Segment</u>
Ames Lab	IA	Ames	Energy	Research, Testing & Medical Laboratories
Armstrong Research Farm	IA	Lewis	Agri-Business	Research, Testing & Medical Laboratories
Chemright Laboratories Inc	IA	Maquoketa	Agri-Business	Research, Testing & Medical Laboratories
Foundation Analytical Laboratory Inc	IA	Cherokee	Agri-Business	Research, Testing & Medical Laboratories
Frontier Labs Inc	IA	Clear Lake	Agri-Business	Research, Testing & Medical Laboratories
Genetic Id Inc	IA	Fairfield	Plant	Research, Testing & Medical Laboratories
Midwest Independent Soil Samplers Llc	IA	Calumet	Agri-Business	Research, Testing & Medical Laboratories
Mvtl	IA	Nevada	Agri-Business	Research, Testing & Medical Laboratories
North Iowa First Inc	IA	Sanborn	Plant	Research, Testing & Medical Laboratories
Omegachea Biorenewables Llc	IA	Ames	Agri-Business	Research, Testing & Medical Laboratories
Renze Seeds Llc	IA	Templeton	Plant	Plant Genetics
Schillinger Seed Co	IA	West Des Moines	Agri-Business	Plant Genetics
Trimble Genetics	IA	Des Moines	Plant	Plant Genetics

EXHIBIT 1.B: IOWA – AGRICULTURAL – AGRICULTURAL FEEDSTOCK & CHEMICALS (25)

<u>Company</u>	<u>State</u>	<u>City</u>	<u>Segment</u>	<u>Sub-Segment</u>
Agvantage Fs Inc	IA	Waukon	Agri-Business	Agricultural Feedstock & Chemicals
Ajinomoto Heartland Inc	IA	Eddyville	Agri-Business	Agricultural Feedstock & Chemicals
Albaugh Inc	IA	Ankeny	Agri-Business	Agricultural Feedstock & Chemicals
Archer-Daniels-Midland Co	IA	Clinton	Agri-Business	Agricultural Feedstock & Chemicals
Bio Springer	IA	Cedar Rapids	Agri-Business	Agricultural Feedstock & Chemicals
Biomass Energy Conversion (Becon) Facility	IA	Nevada	Energy	Agricultural Feedstock & Chemicals
Bio-Research Products	IA	North Liberty	Plant	Agricultural Feedstock & Chemicals
Denyon Energy Llc	IA	Webster City	Energy	Agricultural Feedstock & Chemicals
Dow Agrosiences Llc	IA	Iowa Falls	Plant	Agricultural Feedstock & Chemicals
Dupont Pioneer	IA	Johnston	Plant	Agricultural Feedstock & Chemicals
Energenetics Inc	IA	Keokuk	Energy	Agricultural Feedstock & Chemicals
En-Save Inc	IA	Granger	Agri-Business	Agricultural Feedstock & Chemicals
Flo Kay Industries Inc	IA	Sioux City	Agri-Business	Agricultural Feedstock & Chemicals
Green Valley Chemical Corp	IA	Creston	Agri-Business	Agricultural Feedstock & Chemicals
Helena Industries	IA	Des Moines	Agri-Business	Agricultural Feedstock & Chemicals
L & M Ethanol	IA	Fort Dodge	Energy	Agricultural Feedstock & Chemicals
Liqui-Grow	IA	Durant	Agri-Business	Agricultural Feedstock & Chemicals
Mcg Biocomposites Llc	IA	Cedar Rapids	Agri-Business	Agricultural Feedstock & Chemicals
Midwest Organics	IA	Britt	Agri-Business	Agricultural Feedstock & Chemicals
Nachurs Alpines Solutions	IA	Red Oak	Agri-Business	Agricultural Feedstock & Chemicals
North Central Coop Fuels	IA	Kanawha	Agri-Business	Agricultural Feedstock & Chemicals
Plymouth Energy Llc	IA	Merrill	Agri-Business	Agricultural Feedstock & Chemicals
Pro Cooperative	IA	Terril	Agri-Business	Agricultural Feedstock & Chemicals
Soil Solutions	IA	Onawa	Plant	Agricultural Feedstock & Chemicals
Susterea Biorenewables Llc	IA	Ames	Plant	Agricultural Feedstock & Chemicals

EXHIBIT 1.C: IOWA – AGRICULTURAL – AGRICULTURAL & FOOD PRODUCTS (21)

<u>Company</u>	<u>State</u>	<u>City</u>	<u>Segment</u>	<u>Sub-Segment</u>
Ag Processing Inc A Cooperative	IA	Sheldon	Agri-Business	Agricultural & Food Products
Agresources Development Group Llc	IA	Ankeny	Agri-Business	Agricultural & Food Products
American Natural Processors	IA	Cherokee	Agri-Business	Agricultural & Food Products
C S I Chemical Corp	IA	Bondurant	Plant	Agricultural & Food Products
Fec Solutions	IA	Pleasant Hill	Agri-Business	Agricultural & Food Products
Grain Processing Corp	IA	Muscatine	Agri-Business	Agricultural & Food Products
Iowa Crop Improvement Association	IA	Ames	Agri-Business	Agricultural & Food Products
Iowa Drying And Processing	IA	Sibley	Agri-Business	Agricultural & Food Products
J & L Grain Processing	IA	Riceville	Agri-Business	Agricultural & Food Products
Kerber Milling Co	IA	Emmetsburg	Agri-Business	Agricultural & Food Products
Little Sioux Corn Processors	IA	Marcus	Agri-Business	Agricultural & Food Products
Manildra Milling Corp	IA	Hamburg	Agri-Business	Agricultural & Food Products
Mycogen Seeds	IA	Marshalltown	Agri-Business	Agricultural & Food Products
Penford Products Co	IA	Cedar Rapids	Agri-Business	Agricultural & Food Products
Quad County Corn Processors Cooperative	IA	Galva	Agri-Business	Agricultural & Food Products
Rembrandt Enterprises	IA	Spirit Lake	Agri-Business	Agricultural & Food Products
Soil Technologies Corp	IA	Fairfield	Plant	Agricultural & Food Products
Stine Seeds	IA	Adel	Agri-Business	Agricultural & Food Products
Syngenta Seeds	IA	Slater	Agri-Business	Agricultural & Food Products
Syngest Inc	IA	Waukee	Plant	Agricultural & Food Products
Valent U.S.A. Corp	IA	Osage	Agri-Business	Agricultural & Food Products

EXHIBIT 1.D: IOWA – AGRICULTURAL – ALL OTHERS (14)

<u>Company</u>	<u>State</u>	<u>City</u>	<u>Segment</u>	<u>Sub-Segment</u>
Agren Inc	IA	Carroll	Agri-Business	Software / Health Information Applications
Ai Renewables	IA	Ames	Energy	Renewable Energy
Big River Resources Llc	IA	West Burlington	Energy	Renewable Energy
Golden Grain Energy Llc	IA	Mason City	Plant	Renewable Energy
Ibi Scientific	IA	Peosta	Plant	Bio-Science Related Distribution
Peterson Genetics Inc	IA	Cedar Falls	Plant	Bio-Science Related Distribution
Pure Oleochemicals, Inc.	IA	Riverside	Energy	Drugs & Pharmaceuticals
Reg	IA	Ames	Energy	Renewable Energy
Reg Newton Llc	IA	Newton	Energy	Renewable Energy
Renewable Energy Group Inc	IA	Ames	Energy	Renewable Energy
Siouxland Energy & Livestock Cooperative	IA	Sioux Center	Energy	Renewable Energy
The Denison Andersons Ethanol Llc	IA	Denison	Energy	Renewable Energy
W2 Fuel	IA	Crawfordsville	Energy	Renewable Energy
Western Dubuque Biodiesel, Llc	IA	Farley	Energy	Renewable Energy



EXHIBIT 1.E: KANSAS – AGRICULTURAL – PLANT GENETICS / RESEARCH, TESTING & MED LABS (3)

<u>Company</u>	<u>State</u>	<u>City</u>	<u>Segment</u>	<u>Sub-Segment</u>
Alteca Ltd	KS	Manhattan	Agri-Business	Research, Testing & Medical Laboratories
Diamond Agricultural Research Inc	KS	Larned	Plant	Research, Testing & Medical Laboratories
Identigen	KS	Lawrence	Agri-Business	Research, Testing & Medical Laboratories

EXHIBIT 1.F: KANSAS – AGRICULTURAL – AGRICULTURAL FEEDSTOCK & CHEMICALS (5)

<u>Company</u>	<u>State</u>	<u>City</u>	<u>Segment</u>	<u>Sub-Segment</u>
Evonik Jayhawk Fine Chemicals Corp	KS	Galena	Agri-Business	Agricultural Feedstock & Chemicals
Heartland Plant Innovations	KS	Manhattan	Plant	Agricultural Feedstock & Chemicals
Kalo Inc	KS	Overland Park	Agri-Business	Agricultural Feedstock & Chemicals
Koch Fertilizer Llc	KS	Wichita	Agri-Business	Agricultural Feedstock & Chemicals
Poet Llc	KS	Wichita	Agri-Business	Agricultural Feedstock & Chemicals

EXHIBIT 1.G: KANSAS – AGRICULTURAL – AGRICULTURAL & FOOD PRODUCTS (15)

<u>Company</u>	<u>State</u>	<u>City</u>	<u>Segment</u>	<u>Sub-Segment</u>
Aib International	KS	Manhattan	Agri-Business	Agricultural & Food Products
Alpha Biosystems Inc	KS	Wichita	Agri-Business	Agricultural & Food Products
Archer-Daniels-Midland Co	KS	Olathe	Agri-Business	Agricultural & Food Products
Cereal Ingredients Inc	KS	Leavenworth	Agri-Business	Agricultural & Food Products
Corbion	KS	Lenexa	Agri-Business	Agricultural & Food Products
Edenspace Systems Corp	KS	Manhattan	Plant	Agricultural & Food Products
Imac	KS	Sabetha	Agri-Business	Agricultural & Food Products
Koch Agronomic Services Llc	KS	Wichita	Agri-Business	Agricultural & Food Products
LS B Products	KS	Manhattan	Agri-Business	Agricultural & Food Products
Mgp Ingredients Inc	KS	Atchison	Agri-Business	Agricultural & Food Products
Mid-South Milling Co	KS	Kansas City	Agri-Business	Agricultural & Food Products
Ohlde Seed Farm	KS	Palmer	Agri-Business	Agricultural & Food Products
Research Products Co Div	KS	Salina	Agri-Business	Agricultural & Food Products
Star Seed - Osborne	KS	Osborne	Agri-Business	Agricultural & Food Products
Taylor Seed	KS	White	Agri-Business	Agricultural & Food Products

EXHIBIT 1.H: KANSAS – AGRICULTURAL – ALL OTHERS (7)

<u>Company</u>	<u>State</u>	<u>City</u>	<u>Segment</u>	<u>Sub-Segment</u>
Advanced Alternative Energy Corp	KS	Lawrence	Energy	Renewable Energy
AgriLytics	KS	Olathe	Agri-Business	Software / Health Information Applications
Arkalon Energy Llc	KS	Liberal	Energy	Bio-Science Related Distribution
Phytotech	KS	Overland Park	Plant	Bio-Science Related Distribution
Reeve Agri Energy Corp	KS	Garden City	Energy	Renewable Energy
Steinlite Corp	KS	Atchison	Agri-Business	Medical Devices & Equipment
Tvn Systems Inc	KS	Lawrence	Energy	Renewable Energy



EXHIBIT 1.I: MISSOURI – AGRICULTURAL – PLANT GENETICS / RESEARCH, TESTING & MED LABS (17)

<u>Company</u>	<u>State</u>	<u>City</u>	<u>Segment</u>	<u>Sub-Segment</u>
Adaptive Instrument Inc	MO	Lees Summit	Agri-Business	Research, Testing & Medical Laboratories
Apse Llc	MO	St. Louis	Plant	Plant Genetics
Bioglow Llc	MO	St. Louis	Plant	Plant Genetics
Center For Bio Diversity Informatics	MO	St. Louis	Plant	Plant Genetics
Central Seed Lab Inc	MO	Lamar	Plant	Research, Testing & Medical Laboratories
Chestnut Labs	MO	Springfield	Agri-Business	Research, Testing & Medical Laboratories
Custom Industrial Analysis Labs	MO	St. Joseph	Agri-Business	Research, Testing & Medical Laboratories
Custom Laboratory Inc	MO	Golden City	Agri-Business	Research, Testing & Medical Laboratories
Great Plains Analytical Laboratory	MO	Kansas City	Plant	Research, Testing & Medical Laboratories
Intact Genomics	MO	St. Louis	Plant	Research, Testing & Medical Laboratories
Lemnatec Corp	MO	St. Louis	Plant	Research, Testing & Medical Laboratories
Microbe Inotech Laboratories Inc	MO	St. Louis	Agri-Business	Research, Testing & Medical Laboratories
Missouri Botanical Gardens	MO	St. Louis	Plant	Research, Testing & Medical Laboratories
Newleaf Symbiotics	MO	St. Louis	Plant	Research, Testing & Medical Laboratories
Peppro Analytics	MO	Columbia	Plant	Research, Testing & Medical Laboratories
Symyco	MO	St. Louis	Plant	Plant Genetics
Trophomax	MO	St. Louis	Plant	Plant Genetics

EXHIBIT 1.J: MISSOURI – AGRICULTURAL – AGRICULTURAL FEEDSTOCK & CHEMICALS (11)

<u>Company</u>	<u>State</u>	<u>City</u>	<u>Segment</u>	<u>Sub-Segment</u>
A G Heimsoth Service	MO	Lincoln	Agri-Business	Agricultural Feedstock & Chemicals
Agraform Llc	MO	St. Louis	Agri-Business	Agricultural Feedstock & Chemicals
Akermin Inc	MO	St. Louis	Energy	Agricultural Feedstock & Chemicals
Basf Corp	MO	Palmyra	Agri-Business	Agricultural Feedstock & Chemicals
Bayer Cropscience Lp	MO	Kansas City	Plant	Agricultural Feedstock & Chemicals
Cargill Inc	MO	Kansas City	Agri-Business	Agricultural Feedstock & Chemicals
Chemsico	MO	St. Louis	Agri-Business	Agricultural Feedstock & Chemicals
Glucan Biorenewables	MO	St. Louis	Energy	Agricultural Feedstock & Chemicals
J M Bard Bard Co	MO	Seneca	Agri-Business	Agricultural Feedstock & Chemicals
Mfa Incorporated	MO	Columbia	Agri-Business	Agricultural Feedstock & Chemicals
The Scotts Company	MO	Wright City	Agri-Business	Agricultural Feedstock & Chemicals

EXHIBIT 1.K: MISSOURI – AGRICULTURAL – AGRICULTURAL & FOOD PRODUCTS (18)

<u>Company</u>	<u>State</u>	<u>City</u>	<u>Segment</u>	<u>Sub-Segment</u>
Arvegenix	MO	St. Louis	Plant	Agricultural & Food Products
Ashland Farm Botanicals Inc	MO	Sedalia	Plant	Agricultural & Food Products
Biosorb Inc	MO	St. Charles	Plant	Agricultural & Food Products
Bunge North America	MO	St. Louis	Agri-Business	Agricultural & Food Products
Donald Danforth Plant Science Center	MO	St. Louis	Plant	Agricultural & Food Products
Dupont Danisco Animal Nutrition	MO	St. Louis	Agri-Business	Agricultural & Food Products
Highquest Partners	MO	St. Louis	Agri-Business	Agricultural & Food Products
Ingredion Incorporated	MO	Kansas City	Agri-Business	Agricultural & Food Products
Kultevat	MO	Creve Coeur	Plant	Agricultural & Food Products
Kws	MO	Creve Coeur	Plant	Agricultural & Food Products
Lifeline Foods Llc	MO	St. Joseph	Plant	Agricultural & Food Products
Monsanto Co	MO	St. Louis	Plant	Agricultural & Food Products
Producers Midsouth	MO	Kennett	Agri-Business	Agricultural & Food Products
Ribus Inc	MO	St. Louis	Plant	Agricultural & Food Products
SI Technology Inc	MO	Mexico	Plant	Agricultural & Food Products
Star Labs / Forage Research	MO	Clarksdale	Agri-Business	Agricultural & Food Products
The Yield Lab	MO	Creve Coeur	Agri-Business	Agricultural & Food Products
Westbred	MO	St. Louis	Agri-Business	Agricultural & Food Products

EXHIBIT 1.L: MISSOURI – AGRICULTURAL – ALL OTHERS (7)

<u>Company</u>	<u>State</u>	<u>City</u>	<u>Segment</u>	<u>Sub-Segment</u>
Biologic Energy Partners	MO	St. Louis	Energy	Renewable Energy
Elemental Enzymes	MO	Columbia	Agri-Business	Bio-Science Related Distribution
Futurefuel	MO	St. Louis	Energy	Bio-Science Related Distribution
Nidus	MO	St. Louis	Energy	Renewable Energy
Prosyon Systems	MO	St. Louis	Energy	Software / Health Information Applications
Solutia	MO	St. Louis	Energy	Renewable Energy
Xeragenx Llc	MO	St. Louis	Plant	Drugs & Pharmaceuticals



EXHIBIT 1.M: NEBRASKA – AGRICULTURAL – PLANT GENETICS / RESEARCH, TESTING & MED LABS (12)

<u>Company</u>	<u>State</u>	<u>City</u>	<u>Segment</u>	<u>Sub-Segment</u>
D.L.S. Consulting Llc	NE	Norfolk	Agri-Business	Research, Testing & Medical Laboratories
Dm Crop Research	NE	Papillion	Agri-Business	Research, Testing & Medical Laboratories
Holland Scientific	NE	Lincoln	Agri-Business	Research, Testing & Medical Laboratories
Li-Cor Biosciences	NE	Lincoln	Plant	Research, Testing & Medical Laboratories
Midwest Laboratories Inc	NE	Omaha	Agri-Business	Research, Testing & Medical Laboratories
Midwest Research Inc	NE	York	Agri-Business	Research, Testing & Medical Laboratories
Nema Test	NE	Lincoln	Agri-Business	Research, Testing & Medical Laboratories
Neogen Corp	NE	Lincoln	Agri-Business	Research, Testing & Medical Laboratories
Onecert	NE	Lincoln	Agri-Business	Research, Testing & Medical Laboratories
Real Farm Research	NE	Aurora	Agri-Business	Research, Testing & Medical Laboratories
Syngenta Corp	NE	Grand Island	Plant	Plant Genetics
Ward Laboratories	NE	Kearney	Agri-Business	Research, Testing & Medical Laboratories

EXHIBIT 1.N: NEBRASKA – AGRICULTURAL – AGRICULTURAL FEEDSTOCK & CHEMICALS (11)

<u>Company</u>	<u>State</u>	<u>City</u>	<u>Segment</u>	<u>Sub-Segment</u>
Agqwest Inc	NE	Greenwood	Agri-Business	Agricultural Feedstock & Chemicals
Agrium U.S. Inc	NE	Beatrice	Agri-Business	Agricultural Feedstock & Chemicals
Bastlab Llc	NE	Omaha	Agri-Business	Agricultural Feedstock & Chemicals
Bioprocess Algae Llc	NE	Omaha	Agri-Business	Agricultural Feedstock & Chemicals
Helena Chemical Co	NE	Benkelman	Agri-Business	Agricultural Feedstock & Chemicals
Kugler	NE	Ulysses	Agri-Business	Agricultural Feedstock & Chemicals
Laurel Biocomposites	NE	Laurel	Agri-Business	Agricultural Feedstock & Chemicals
Ne Ethanol Board	NE	Lincoln	Energy	Agricultural Feedstock & Chemicals
Novozymes	NE	Blair	Energy	Agricultural Feedstock & Chemicals
P H D Maximum Crop Llc	NE	Oneill	Agri-Business	Agricultural Feedstock & Chemicals
Xylemer Bioproducts	NE	Kearney	Agri-Business	Agricultural Feedstock & Chemicals

EXHIBIT 1.O: NEBRASKA – AGRICULTURAL – AGRICULTURAL & FOOD PRODUCTS (12)

<u>Company</u>	<u>State</u>	<u>City</u>	<u>Segment</u>	<u>Sub-Segment</u>
Ag Valley Cooperative Non-Stock	NE	Arapahoe	Agri-Business	Agricultural & Food Products
Agp Corn Processing Inc	NE	Omaha	Agri-Business	Agricultural & Food Products
Aurora Coop	NE	Aurora	Agri-Business	Agricultural & Food Products
Conagra	NE	Omaha	Agri-Business	Agricultural & Food Products
Corn Husker Agronomics Inc	NE	Axtell	Agri-Business	Agricultural & Food Products
Natureworks Llc	NE	Blair	Agri-Business	Agricultural & Food Products
Nebraska Crop Improvement Association	NE	Lincoln	Agri-Business	Agricultural & Food Products
Organic Crop Improvement Association	NE	Lincoln	Agri-Business	Agricultural & Food Products
Pellet Technology Usa	NE	Gretna	Agri-Business	Agricultural & Food Products
Pennington Seed Of Nebraska	NE	Sidney	Agri-Business	Agricultural & Food Products
Producer Hybrids	NE	Battle Creek	Agri-Business	Agricultural & Food Products
The Scoular Company	NE	Omaha	Agri-Business	Agricultural & Food Products

EXHIBIT 1.P: NEBRASKA – AGRICULTURAL – ALL OTHERS (9)

<u>Company</u>	<u>State</u>	<u>City</u>	<u>Segment</u>	<u>Sub-Segment</u>
Abengoa Bioenergy Corp	NE	York	Energy	Bio-Science Related Distribution
Advanced Energy Fuels Llc	NE	Oakland	Energy	Renewable Energy
Agreliant Genetics	NE	Gibbon	Agri-Business	Bio-Science Related Distribution
E Energy	NE	Adams	Energy	Renewable Energy
Green Plains Inc	NE	Omaha	Energy	Bio-Science Related Distribution
Kaapa Ethanol Llc	NE	Minden	Energy	Renewable Energy
Siouxland Ethanol Llc	NE	Jackson	Energy	Renewable Energy
Standard Ethanol Madrid Llc	NE	North Platte	Energy	Renewable Energy
Verasun Energy Corp	NE	Central City	Energy	Renewable Energy

EXHIBIT 2: ANIMAL SEGMENT (117 Entities)

EXHIBIT 2.A: IOWA – ANIMAL – DRUGS & PHARMACEUTICALS/BIOLOGICALS/VACCINES (7)

<u>Company</u>	<u>State</u>	<u>City</u>	<u>Segment</u>	<u>Sub-Segment</u>
Advantech Ltd	IA	Fort Dogge	Animal	Drugs & Pharmaceuticals
Arko Laboratories Ltd	IA	Jewell	Animal	Biologicals / Vaccines
Dow Elanco	IA	Larchwood	Animal	Biologicals / Vaccines
Harris Vaccines	IA	Ames	Animal	Biologicals / Vaccines
Heska Corp	IA	Pleasant Hill	Animal	Drugs & Pharmaceuticals
Lloyd Inc	IA	Shenandoah	Animal	Drugs & Pharmaceuticals
Novartis Animal Health Us Inc	IA	Larchwood	Animal	Drugs & Pharmaceuticals

EXHIBIT 2.B: IOWA – ANIMAL – MEDICAL DEVICES & EQUIPMENT (0)

EXHIBIT 2.C: IOWA – ANIMAL – RESEARCH, TESTING & MEDICAL LABORATORIES (2)

<u>Company</u>	<u>State</u>	<u>City</u>	<u>Segment</u>	<u>Sub-Segment</u>
Dairy Lab Services Inc	IA	Dubuque	Animal	Research, Testing & Medical Laboratories
Trans Ova Genetics L.C.	IA	Sioux Center	Animal	Research, Testing & Medical Laboratories

EXHIBIT 2.D: IOWA – ANIMAL – ALL OTHERS (23)

<u>Company</u>	<u>State</u>	<u>City</u>	<u>Segment</u>	<u>Sub-Segment</u>
A M P C Inc	IA	Boone	Animal	Agricultural & Food Products
Apc Inc	IA	Ankeny	Animal	Agricultural & Food Products
Best Veterinary Solutions Inc	IA	Ellsworth	Animal	Bio-Science Related Distribution
Dfs Inc	IA	Newell	Animal	Agricultural & Food Products
Diamondv	IA	Cedar Rapids	Animal	Agricultural Feedstock & Chemicals
Dsm Nutritional Products Inc	IA	Ames	Animal	Agricultural & Food Products
Exemplar Genetics Llc	IA	Sioux Center	Animal	Bio-Science Related Distribution
Feed Energy Co	IA	Des Moines	Animal	Agricultural & Food Products
Horsetech Inc Pup Sup	IA	Laurens	Animal	Agricultural & Food Products
Impro Products Inc	IA	Waukon	Animal	Agricultural & Food Products
Kay Dee Feed Co	IA	Sioux City	Animal	Agricultural & Food Products
Kemin Industries	IA	Des Moines	Animal	Agricultural Feedstock & Chemicals
Lely Usa	IA	Pella	Animal	Agricultural & Food Products
Mason City By-Products Inc	IA	Mason City	Animal	Agricultural & Food Products
Nutra-Flo Co	IA	Sioux City	Animal	Agricultural Feedstock & Chemicals
Prairie Systems	IA	Spencer	Animal	Software / Health Information Applications
Probioferm	IA	Des Moines	Animal	Agricultural & Food Products
Struve Labs Inc	IA	Manning	Animal	Agricultural & Food Products
Swine Data Management	IA	Wheatland	Animal	Agricultural & Food Products
Tek Products	IA	Des Moines	Animal	Bio-Science Related Distribution
Transagra International Inc	IA	Storm Lake	Animal	Agricultural Feedstock & Chemicals
Van Beek Natural Science, Llc	IA	Orange City	Animal	Agricultural Feedstock & Chemicals
Varied Industries Corp	IA	Mason City	Animal	Agricultural Feedstock & Chemicals

EXHIBIT 2.E: KANSAS – ANIMAL – DRUGS & PHARMACEUTICALS/BIOLOGICALS/VACCINES (13)

<u>Company</u>	<u>State</u>	<u>City</u>	<u>Segment</u>	<u>Sub-Segment</u>
Aratana Therapeutics Inc	KS	Kansas City	Animal	Drugs & Pharmaceuticals
Bvm Biologics Llc	KS	Leawood	Animal	Biologicals / Vaccines
Centaur Animal Health	KS	Olathe	Animal	Drugs & Pharmaceuticals
Central Biomed Inc	KS	Lenexa	Animal	Biologicals / Vaccines
Dechra Veterinary Products	KS	Overland Park	Animal	Drugs & Pharmaceuticals
Ivy Animal Health Inc	KS	Overland Park	Animal	Drugs & Pharmaceuticals
Merck	KS	De Soto	Animal	Biologicals / Vaccines
Nika Biochemicals Inc	KS	Overland Park	Animal	Drugs & Pharmaceuticals
Norbrook Inc	KS	Lenexa	Animal	Drugs & Pharmaceuticals
Prommune, Inc.	KS	Overland Park	Animal	Biologicals / Vaccines
Sparhawk Laboratories Inc	KS	Lenexa	Animal	Drugs & Pharmaceuticals
Stason Animal Health	KS	Kansas City	Animal	Drugs & Pharmaceuticals
Tvax Animal Health	KS	Olathe	Animal	Drugs & Pharmaceuticals

EXHIBIT 2.F: KANSAS – ANIMAL – MEDICAL DEVICES & EQUIPMENT (2)

<u>Company</u>	<u>State</u>	<u>City</u>	<u>Segment</u>	<u>Sub-Segment</u>
Pulse Needle Free	KS	Lenexa	Animal	Medical Devices & Equipment
Shor-Line	KS	Kansas City	Animal	Medical Devices & Equipment

EXHIBIT 2.G: KANSAS – ANIMAL – RESEARCH, TESTING & MEDICAL LABORATORIES (7)

<u>Company</u>	<u>State</u>	<u>City</u>	<u>Segment</u>	<u>Sub-Segment</u>
Abaxis Veterinary Reference Laboratories	KS	Olathe	Animal	Research, Testing & Medical Laboratories
Alcherabio	KS	Kansas City	Animal	Research, Testing & Medical Laboratories
Central States Testing	KS	Sublette	Animal	Research, Testing & Medical Laboratories
Ceva	KS	Lenexa	Animal	Research, Testing & Medical Laboratories
Expedite Llc	KS	Prairie Village	Animal	Research, Testing & Medical Laboratories
Hennessy Research Associates	KS	Shawnee	Animal	Research, Testing & Medical Laboratories
Likarda Llc	KS	Kansas City	Animal	Research, Testing & Medical Laboratories

EXHIBIT 2.H: KANSAS – ANIMAL – ALL OTHERS (8)

<u>Company</u>	<u>State</u>	<u>City</u>	<u>Segment</u>	<u>Sub-Segment</u>
Brakke Consulting	KS	Overland Park	Animal	Agricultural & Food Products
Del Monte Pet Products	KS	Lawrence	Animal	Agricultural & Food Products
Hill'S Pet Nutrition Inc	KS	Topeka	Animal	Agricultural & Food Products
Ms Biotec	KS	Wamego	Animal	Agricultural Feedstock & Chemicals
Smart Vet	KS	Olathe	Animal	Agricultural Feedstock & Chemicals
Tekvet Technologies	KS	Garden City	Animal	Software / Health Information Applications
Veternary Specialty Products	KS	Shawnee	Animal	Software / Health Information Applications
Zupreem	KS	Shawnee	Animal	Agricultural & Food Products

EXHIBIT 2.I: MISSOURI – ANIMAL - DRUGS & PHARMACEUTICALS/BIOLOGICALS/VACCINES (13)

<u>Company</u>	<u>State</u>	<u>City</u>	<u>Segment</u>	<u>Sub-Segment</u>
Addison Biological Laboratory, Inc	MO	Fayette	Animal	Biologicals / Vaccines
AgriLabs	MO	St. Joseph	Animal	Drugs & Pharmaceuticals
Ameri-Pac Inc	MO	St. Joseph	Animal	Drugs & Pharmaceuticals
Bock Vet Pharma Llc	MO	St. Louis	Animal	Drugs & Pharmaceuticals
Boehringer Ingelheim Vetmedica Inc	MO	St. Joseph	Animal	Biologicals / Vaccines
Cassco Bio Labs	MO	St. Louis	Animal	Drugs & Pharmaceuticals
Creative Science, Llc	MO	Ballwin	Animal	Drugs & Pharmaceuticals
Durvet Inc	MO	Blue Springs	Animal	Drugs & Pharmaceuticals
Ecto Development Corp	MO	Blue Springs	Animal	Drugs & Pharmaceuticals
Immvac Inc	MO	Columbia	Animal	Drugs & Pharmaceuticals
Provetis Llc	MO	Ballwin	Animal	Drugs & Pharmaceuticals
Sinclair Research	MO	Auxvasse	Animal	Drugs & Pharmaceuticals
Vit A Zine Inc	MO	Butler	Animal	Drugs & Pharmaceuticals

EXHIBIT 2.J: MISSOURI – ANIMAL – MEDICAL DEVICES & EQUIPMENT (3)

<u>Company</u>	<u>State</u>	<u>City</u>	<u>Segment</u>	<u>Sub-Segment</u>
Equinosis Llc	MO	St. Louis	Animal	Medical Devices & Equipment
Innovaprep Llc	MO	Drexel	Animal	Medical Devices & Equipment
Stone Manufacturing & Supply	MO	Kansas City	Animal	Medical Devices & Equipment

EXHIBIT 2.K: MISSOURI – ANIMAL – RESEARCH, TESTING & MEDICAL LABORATORIES (5)

<u>Company</u>	<u>State</u>	<u>City</u>	<u>Segment</u>	<u>Sub-Segment</u>
Allied Monitor Inc	MO	Fayette	Animal	Research, Testing & Medical Laboratories
Gfk Kynetec Usa	MO	St. Louis	Animal	Research, Testing & Medical Laboratories
Idexx Bioresearch	MO	Columbia	Animal	Research, Testing & Medical Laboratories
Np Analytical Laboratories	MO	St. Louis	Animal	Research, Testing & Medical Laboratories
Veterinary Microbiology Center	MO	Columbia	Animal	Research, Testing & Medical Laboratories

EXHIBIT 2.L: MISSOURI – ANIMAL – ALL OTHERS (13)

<u>Company</u>	<u>State</u>	<u>City</u>	<u>Segment</u>	<u>Sub-Segment</u>
Afb International	MO	St. Louis	Animal	Agricultural & Food Products
American Proteins Inc	MO	Concordia	Animal	Agricultural & Food Products
Aquascience Technologies & Research Inc	MO	Richmond	Animal	Agricultural & Food Products
Biozyme Inc	MO	St. Joseph	Animal	Agricultural & Food Products
Clipper Distributing	MO	St. Joseph	Animal	Bio-Science Related Distribution
Delaval Manufacturing	MO	Kansas City	Animal	Agricultural & Food Products
Excel Bioproducts Inc	MO	Washburn	Animal	Bio-Science Related Distribution
Inovotec Animal Care	MO	St. Louis	Animal	Software / Health Information Applications
Ioditech	MO	Kansas City	Animal	Agricultural Feedstock & Chemicals
Manna Pro Corp	MO	Chesterfield	Animal	Agricultural & Food Products
Mars Petcare	MO	Kansas City	Animal	Agricultural & Food Products
Nestle Purina Petcare	MO	St. Louis	Animal	Agricultural & Food Products
Novus International	MO	St. Charles	Animal	Agricultural & Food Products

EXHIBIT 2.M: NEBRASKA – ANIMAL - DRUGS & PHARMACEUTICALS/BIOLOGICALS/VACCINES (11)

<u>Company</u>	<u>State</u>	<u>City</u>	<u>Segment</u>	<u>Sub-Segment</u>
Antelope Valley Bios	NE	Lincoln	Animal	Biologicals / Vaccines
Benchmark Biolabs, Inc.	NE	Lincoln	Animal	Biologicals / Vaccines
Csr Company Inc	NE	Omaha	Animal	Drugs & Pharmaceuticals
Eide Consulting	NE	Lincoln	Animal	Biologicals / Vaccines
Eudaemonic Corp	NE	Omaha	Animal	Drugs & Pharmaceuticals
Nova-Tech Inc	NE	Grand Island	Animal	Drugs & Pharmaceuticals
Pala Tech Laboratories Inc	NE	Lincoln	Animal	Drugs & Pharmaceuticals
Perrigo Animal Health	NE	Omaha	Animal	Drugs & Pharmaceuticals
Pharmgate	NE	Omaha	Animal	Drugs & Pharmaceuticals
Vaxliant, Llc	NE	Lincoln	Animal	Biologicals / Vaccines
Zoetis	NE	Lincoln	Animal	Drugs & Pharmaceuticals

EXHIBIT 2.N: NEBRASKA – ANIMAL - MEDICAL DEVICES & EQUIPMENT (2)

<u>Company</u>	<u>State</u>	<u>City</u>	<u>Segment</u>	<u>Sub-Segment</u>
Materials & Machines Corporation Of America	NE	Lincoln	Animal	Medical Devices & Equipment
Quantified Ag	NE	Lincoln	Animal	Medical Devices & Equipment

EXHIBIT 2.O: NEBRASKA – ANIMAL - RESEARCH, TESTING & MEDICAL LABORATORIES (2)

<u>Company</u>	<u>State</u>	<u>City</u>	<u>Segment</u>	<u>Sub-Segment</u>
Geneseek	NE	Lincoln	Animal	Research, Testing & Medical Laboratories
Midwest Veterinary Services / Central States Re	NE	Oakland	Animal	Research, Testing & Medical Laboratories

EXHIBIT 2.P: NEBRASKA – ANIMAL – ALL OTHERS (6)

<u>Company</u>	<u>State</u>	<u>City</u>	<u>Segment</u>	<u>Sub-Segment</u>
Albrechtgtx	NE	Waverly	Animal	Bio-Science Related Distribution
Bovidr Laboratories Inc	NE	Scottsbluff	Animal	Agricultural & Food Products
International Nutrition	NE	Omaha	Animal	Agricultural & Food Products
Nova Microbial Technologies	NE	Gretna	Animal	Agricultural & Food Products
Oxbow Animal Health	NE	Murdock	Animal	Agricultural & Food Products
W L Lawson Co Llc	NE	Omaha	Animal	Bio-Science Related Distribution

EXHIBIT 3: HUMAN SEGMENT (474 Entities)

EXHIBIT 3.A: IOWA – HUMAN – DRUGS & PHARMACEUTICALS/BIOLOGICALS/VACCINES (23)

<u>Company</u>	<u>State</u>	<u>City</u>	<u>Segment</u>	<u>Sub-Segment</u>
Apotheca Inc	IA	Woodbine	Human	Drugs & Pharmaceuticals
Aspen Api Inc	IA	Sioux City	Human	Drugs & Pharmaceuticals
Cambrex	IA	Charles City	Human	Drugs & Pharmaceuticals
Clinical Research Advantage	IA	Council Bluffs	Human	Drugs & Pharmaceuticals
Heartland Medical Research Inc	IA	Clive	Human	Drugs & Pharmaceuticals
Herba Aromatica Inc	IA	Fairfield	Human	Drugs & Pharmaceuticals
Hot Shots Nuclear Medicine	IA	Davenport	Human	Drugs & Pharmaceuticals
Jones Microbiology Institute Inc	IA	North Liberty	Human	Drugs & Pharmaceuticals
Jrs Pharma Lp	IA	Cedar Rapids	Human	Drugs & Pharmaceuticals
Kempharm Inc	IA	Coralville	Human	Drugs & Pharmaceuticals
Medcara Pharmaceuticals	IA	Conrad	Human	Drugs & Pharmaceuticals
Medco Lab Inc	IA	Sioux City	Human	Drugs & Pharmaceuticals
Memcine Pharmaceuticals Inc.	IA	Iowa City	Human	Biologicals / Vaccines
Metabolic Technologies, Inc	IA	Ames	Human	Drugs & Pharmaceuticals
National Pharmaceutical Returns Inc	IA	Urbandale	Human	Drugs & Pharmaceuticals
Newlink Genetics	IA	Ames	Human	Drugs & Pharmaceuticals
Pathovacs Incorporated	IA	Ames	Human	Biologicals / Vaccines
Pk Biosciences Corp	IA	Ames	Human	Drugs & Pharmaceuticals
Sonac Usa Llc	IA	Maquoketa	Human	Drugs & Pharmaceuticals
Terpenoid Therapeutics Incorporated	IA	Coralville	Human	Drugs & Pharmaceuticals
Vertex Pharmaceuticals	IA	Coralville	Human	Drugs & Pharmaceuticals
Viraquest Inc	IA	North Liberty	Human	Biologicals / Vaccines
Zlb Behring	IA	Davenport	Human	Drugs & Pharmaceuticals

EXHIBIT 3.B: IOWA – HUMAN – MEDICAL DEVICES & EQUIPMENT (18)

<u>Company</u>	<u>State</u>	<u>City</u>	<u>Segment</u>	<u>Sub-Segment</u>
Advanced Analytical Technologies Inc	IA	Ames	Human	Medical Devices & Equipment
Advanced Arm Dynamics Group Inc	IA	Waterloo	Human	Medical Devices & Equipment
Advanced Medical Concepts Inc	IA	Iowa City	Human	Medical Devices & Equipment
Asl Analytical Inc	IA	Coralville	Human	Medical Devices & Equipment
Bioforce Nanosciences Inc	IA	Ames	Human	Medical Devices & Equipment
Cahill Medical Supply	IA	Grimes	Human	Medical Devices & Equipment
Civco Medical Solutions	IA	Coralville	Human	Medical Devices & Equipment
E Technologies Inc	IA	Davenport	Human	Medical Devices & Equipment
Hansen Ophthalmic Development Laboratory	IA	Coralville	Human	Medical Devices & Equipment
Idx Llc	IA	Iowa City	Human	Medical Devices & Equipment
Iowa Approach Llc	IA	Iowa City	Human	Medical Devices & Equipment
Medical Industries America Inc	IA	Adel	Human	Medical Devices & Equipment
Metrix Co	IA	Dubuque	Human	Medical Devices & Equipment
Midland Bioproducts Corp.	IA	Boone	Human	Medical Devices & Equipment
Miller Meir Limb & Brace Inc	IA	Clinton	Human	Medical Devices & Equipment
O & P1 Central Fabrication	IA	Waterloo	Human	Medical Devices & Equipment
Osteoceramics	IA	Ames	Human	Medical Devices & Equipment
Yeager Instruments Inc	IA	Iowa City	Human	Medical Devices & Equipment

EXHIBIT 3.C: IOWA – HUMAN – RESEARCH, TESTING & MEDICAL LABORATORIES (11)

<u>Company</u>	<u>State</u>	<u>City</u>	<u>Segment</u>	<u>Sub-Segment</u>
Accurascience	IA	Johnston	Human	Research, Testing & Medical Laboratories
Advanced Genome Technologies	IA	Boone	Human	Research, Testing & Medical Laboratories
Cellular Engineering Technologies	IA	Coralville	Human	Research, Testing & Medical Laboratories
Creodyne Llc	IA	Ames	Human	Research, Testing & Medical Laboratories
Immortagen Llc	IA	Coralville	Human	Research, Testing & Medical Laboratories
Integrated Dna Technologies, Inc.	IA	Coralville	Human	Research, Testing & Medical Laboratories
Iowa Academy Of Science	IA	Cedar Falls	Human	Research, Testing & Medical Laboratories
Iowa Clinical Research Corp	IA	Iowa City	Human	Research, Testing & Medical Laboratories
Iowa Oncology Research Association	IA	Des Moines	Human	Research, Testing & Medical Laboratories
Midwest Cardiovascular Research Foundation	IA	Davenport	Human	Research, Testing & Medical Laboratories
State Hygienic Lab	IA	Coralville	Human	Research, Testing & Medical Laboratories

EXHIBIT 3.D: IOWA – HUMAN – ALL OTHERS (9)

<u>Company</u>	<u>State</u>	<u>City</u>	<u>Segment</u>	<u>Sub-Segment</u>
Advanced Biomedical Informatics Group Llc	IA	Iowa City	Human	Software / Health Information Applications
Bio::Neos Inc	IA	Coralville	Human	Software / Health Information Applications
Compleware Corp	IA	North Liberty	Human	Software / Health Information Applications
Embria Health Sciences	IA	Ankeny	Human	Agricultural & Food Products
Liquidus American Biotech Llc	IA	Huxley	Human	Bio-Science Related Distribution
Mti Biotech Inc	IA	Ames	Human	Agricultural & Food Products
Stockstad & Associates	IA	Clive	Human	Bio-Science Related Distribution
Vision Works Inc	IA	Cedar Rapids	Human	Software / Health Information Applications
Vwr International	IA	Blakesburg	Human	Bio-Science Related Distribution

EXHIBIT 3.E: KANSAS – HUMAN – DRUGS & PHARMACEUTICALS/BIOLOGICALS/VACCINES (40)

<u>Company</u>	<u>State</u>	<u>City</u>	<u>Segment</u>	<u>Sub-Segment</u>
Amerigo Laboratories Llc	KS	Lenexa	Human	Drugs & Pharmaceuticals
Analab Clinical	KS	Lenexa	Human	Drugs & Pharmaceuticals
B F Ascher Co	KS	Lenexa	Human	Drugs & Pharmaceuticals
Bayer Healthcare Llc	KS	Shawnee	Human	Drugs & Pharmaceuticals
Celgene Corp	KS	Overland Park	Human	Drugs & Pharmaceuticals
Central Solutions	KS	Kansas City	Human	Drugs & Pharmaceuticals
Crititech	KS	Lawrence	Human	Drugs & Pharmaceuticals
Deciphera Pharmaceuticals	KS	Lawrence	Human	Drugs & Pharmaceuticals
Heartland Research Associates Llc	KS	Wichita	Human	Drugs & Pharmaceuticals
Hospira	KS	Mcperson	Human	Drugs & Pharmaceuticals
Hylapharm	KS	Lawrence	Human	Drugs & Pharmaceuticals
Igxbio	KS	Lenexa	Human	Drugs & Pharmaceuticals
Immuprep Inc	KS	Lawrence	Human	Drugs & Pharmaceuticals
In Vitro Admet Laboratories Llc	KS	Overland Park	Human	Drugs & Pharmaceuticals
Jcb Laboratories	KS	Wichita	Human	Drugs & Pharmaceuticals
Johnson & Johnson	KS	Salina	Human	Drugs & Pharmaceuticals
Johnson County Clin-Trials	KS	Lenexa	Human	Biologicals / Vaccines
Kcas Bioanalytical Services	KS	Shawnee	Human	Drugs & Pharmaceuticals
Ligand Pharmaceuticals Incorporated	KS	Lawrence	Human	Drugs & Pharmaceuticals
Nova Clinical Research Support	KS	Overland Park	Human	Drugs & Pharmaceuticals
Orbis Biosciences	KS	Kansas City	Human	Drugs & Pharmaceuticals
Orion Bioscience Inc	KS	Lawrence	Human	Drugs & Pharmaceuticals
Osteogenex	KS	Overland Park	Human	Drugs & Pharmaceuticals
Pharmaceutical Research Assoc	KS	Lenexa	Human	Drugs & Pharmaceuticals
Phlogistix	KS	Lenexa	Human	Drugs & Pharmaceuticals
Plastikon Health Care	KS	Lawrence	Human	Drugs & Pharmaceuticals
Pra Health Sciences	KS	Lenexa	Human	Drugs & Pharmaceuticals
Propharma Group	KS	Overland Park	Human	Drugs & Pharmaceuticals
Safc Biosciences	KS	Lenexa	Human	Biologicals / Vaccines
Savara Inc	KS	Lawrence	Human	Drugs & Pharmaceuticals
Serologicals Corp	KS	Lawrence	Human	Drugs & Pharmaceuticals
Silvergate Pharmaceuticals	KS	Overland Park	Human	Drugs & Pharmaceuticals
Sjk Global	KS	Olathe	Human	Biologicals / Vaccines
Teva Pharmaceuticals	KS	Overland Park	Human	Drugs & Pharmaceuticals
Theorem One Research	KS	North Newton	Human	Drugs & Pharmaceuticals
United Biosource Corp	KS	Overland Park	Human	Drugs & Pharmaceuticals
Ventria Bioscience	KS	Junction City	Human	Drugs & Pharmaceuticals
Verrow Pharmaceuticals	KS	Lenexa	Human	Drugs & Pharmaceuticals
Xenotech Llc	KS	Lenexa	Human	Drugs & Pharmaceuticals
York Pharmaceuticals Inc	KS	Kansas City	Human	Drugs & Pharmaceuticals

EXHIBIT 3.F: KANSAS – HUMAN – MEDICAL DEVICES & EQUIPMENT (35)

<u>Company</u>	<u>State</u>	<u>City</u>	<u>Segment</u>	<u>Sub-Segment</u>
Axenic Biomedical Llc	KS	Olathe	Human	Medical Devices & Equipment
Biologix Research Co	KS	Lenexa	Human	Medical Devices & Equipment
Biomedical Devices Of Kansas	KS	Tonganoxie	Human	Medical Devices & Equipment
Blue Endo	KS	Lenexa	Human	Medical Devices & Equipment
Cc Medical Devices	KS	Olathe	Human	Medical Devices & Equipment
Cramer Products	KS	Gardner	Human	Medical Devices & Equipment
Creche Innovations	KS	Stilwell	Human	Medical Devices & Equipment
Css Analytical Co Inc	KS	Shawnee	Human	Medical Devices & Equipment
Digipath	KS	Wichita	Human	Medical Devices & Equipment
Disposable Instrument Co	KS	Lenexa	Human	Medical Devices & Equipment
E Z Breathe Systems Inc	KS	Shawnee Mission	Human	Medical Devices & Equipment
Epic Medical Concepts And Innovations	KS	Mission	Human	Medical Devices & Equipment
Flow Forward Medical	KS	Olathe	Human	Medical Devices & Equipment
Hans Rudolph Inc	KS	Shawnee	Human	Medical Devices & Equipment
Innara Health	KS	Olathe	Human	Medical Devices & Equipment
Knit-Rite Inc	KS	Kansas City	Human	Medical Devices & Equipment
Lohmann & Rauscher Inc	KS	Topeka	Human	Medical Devices & Equipment
Medical Solutions International	KS	Merriam	Human	Medical Devices & Equipment
Medtronic	KS	Hays	Human	Medical Devices & Equipment
Meta Bioscience Llc	KS	Overland Park	Human	Medical Devices & Equipment
Metactive Medical	KS	Olathe	Human	Medical Devices & Equipment
Monarch Molding	KS	Council Grove	Human	Medical Devices & Equipment
Nexus Medical	KS	Lenexa	Human	Medical Devices & Equipment
Oceanic Medical	KS	Atchison	Human	Medical Devices & Equipment
Ortho-Care Casting Llc	KS	Overland Park	Human	Medical Devices & Equipment
Pivot International	KS	Lenexa	Human	Medical Devices & Equipment
Pos-T-Vac Inc	KS	Dodge City	Human	Medical Devices & Equipment
Rbc Medical Innovations	KS	Lenexa	Human	Medical Devices & Equipment
Revitalvision Llc	KS	Lawrence	Human	Medical Devices & Equipment
Scott Specialties Inc	KS	Belleville	Human	Medical Devices & Equipment
Script Pro	KS	Mission	Human	Medical Devices & Equipment
Spinal Simplicity	KS	Lenexa	Human	Medical Devices & Equipment
Vitalograph	KS	Lenexa	Human	Medical Devices & Equipment
West Device Innovations	KS	Kansas City	Human	Medical Devices & Equipment
Zimmer Inc	KS	Shawnee Mission	Human	Medical Devices & Equipment

EXHIBIT 3.G: KANSAS – HUMAN – RESEARCH, TESTING & MEDICAL LABORATORIES (31)

<u>Company</u>	<u>State</u>	<u>City</u>	<u>Segment</u>	<u>Sub-Segment</u>
Are Labs	KS	Overland Park	Human	Research, Testing & Medical Laboratories
Cgmp Validation Llc	KS	Shawnee	Human	Research, Testing & Medical Laboratories
Clinipace Worldwide	KS	Overland Park	Human	Research, Testing & Medical Laboratories
Dartnet Institute	KS	Leawood	Human	Research, Testing & Medical Laboratories
Durrie Vision	KS	Overland Park	Human	Research, Testing & Medical Laboratories
Echogen Inc	KS	Lenexa	Human	Research, Testing & Medical Laboratories
Emb Statistical Solutions	KS	Overland Park	Human	Research, Testing & Medical Laboratories
Eriban Research Inc	KS	Shawnee Mission	Human	Research, Testing & Medical Laboratories
Evogen Inc	KS	Lenexa	Human	Research, Testing & Medical Laboratories
Great Plains Laboratory	KS	Lenexa	Human	Research, Testing & Medical Laboratories
Gtc Research	KS	Shawnee	Human	Research, Testing & Medical Laboratories
Gyrasol Technologies	KS	Lawrence	Human	Research, Testing & Medical Laboratories
Iris Technologies	KS	Lawrence	Human	Research, Testing & Medical Laboratories
Kreps Consulting	KS	Overland Park	Human	Research, Testing & Medical Laboratories
Labone Inc	KS	Olathe	Human	Research, Testing & Medical Laboratories
Microprotein Technologies Inc	KS	Stilwell	Human	Research, Testing & Medical Laboratories
Midwest Bio Services Llc	KS	Overland Park	Human	Research, Testing & Medical Laboratories
Odontex	KS	Lawrence	Human	Research, Testing & Medical Laboratories
Pasture Usa Llc	KS	Olathe	Human	Research, Testing & Medical Laboratories
Physicians Reference Lab	KS	Overland Park	Human	Research, Testing & Medical Laboratories
Pinnacle Technology Inc	KS	Lawrence	Human	Research, Testing & Medical Laboratories
Prl Central Laboratory Services	KS	Overland Park	Human	Research, Testing & Medical Laboratories
Prrn Of Kansas	KS	Wichita	Human	Research, Testing & Medical Laboratories
Progene Biomedical Inc	KS	Shawnee Mission	Human	Research, Testing & Medical Laboratories
Quintiles	KS	Overland Park	Human	Research, Testing & Medical Laboratories
The Great Plains Laboratory	KS	Lenexa	Human	Research, Testing & Medical Laboratories
Tvax Biomedical	KS	Lenexa	Human	Research, Testing & Medical Laboratories
Us Micron	KS	Lenexa	Human	Research, Testing & Medical Laboratories
Veritas Clinical Specialties	KS	Topeka	Human	Research, Testing & Medical Laboratories
Vince & Assoc Clinical Research	KS	Overland Park	Human	Research, Testing & Medical Laboratories
Xenometrics Llc	KS	Stilwell	Human	Research, Testing & Medical Laboratories

EXHIBIT 3.H: KANSAS – HUMAN – ALL OTHERS (5)

<u>Company</u>	<u>State</u>	<u>City</u>	<u>Segment</u>	<u>Sub-Segment</u>
Analyzedirect Inc	KS	Overland Park	Human	Software / Health Information Applications
Cerner Corporation	KS	North Kansas City	Human	Software / Health Information Applications
Health Outcomes Sciences	KS	Overland Park	Human	Software / Health Information Applications
Intellispeak Llc	KS	Lawrence	Human	Software / Health Information Applications
Vwr Scientific Products Corp	KS	Stilwell	Human	Bio-Science Related Distribution

EXHIBIT 3.I: MISSOURI – HUMAN - DRUGS & PHARMACEUTICALS/BIOLOGICALS/VACCINES (108)

<u>Company</u>	<u>State</u>	<u>City</u>	<u>Segment</u>	<u>Sub-Segment</u>
Abc Laboratories	MO	Columbia	Human	Drugs & Pharmaceuticals
Adarza Biosystems	MO	St. Louis	Human	Biologicals / Vaccines
Advance Clinical Inc	MO	St. Louis	Human	Drugs & Pharmaceuticals
Advanced Isolation Technologies	MO	Liberty	Human	Drugs & Pharmaceuticals
American Radiolabeled Chemicals Inc	MO	St. Louis	Human	Drugs & Pharmaceuticals
Antegrin Therapeutics Llc	MO	St. Louis	Human	Drugs & Pharmaceuticals
Apertus Pharmaceutical Llc	MO	Ballwin	Human	Drugs & Pharmaceuticals
Apt Therapeutics	MO	St. Louis	Human	Drugs & Pharmaceuticals
Aptuit (Scientific Operations) Llc	MO	Harrisonville	Human	Drugs & Pharmaceuticals
Array Bridge Inc	MO	St. Louis	Human	Drugs & Pharmaceuticals
Auxagen Inc	MO	St. Louis	Human	Drugs & Pharmaceuticals
Bacterioscan Inc	MO	St. Louis	Human	Biologicals / Vaccines
Baxter	MO	Moberly	Human	Drugs & Pharmaceuticals
Bertram Group Research & Consulting	MO	Lees Summit	Human	Drugs & Pharmaceuticals
Bioscience Strategies	MO	St. Louis	Human	Drugs & Pharmaceuticals
C2N Diagnostics	MO	St. Louis	Human	Drugs & Pharmaceuticals
Care Clinical Research	MO	St. Louis	Human	Drugs & Pharmaceuticals
Care Tech Laboratories	MO	St. Louis	Human	Drugs & Pharmaceuticals
Catalent Pharma Solutions	MO	Kansas City	Human	Drugs & Pharmaceuticals
Confluence Life Sciences, Inc.	MO	St. Louis	Human	Drugs & Pharmaceuticals
Custom Powder Systems	MO	Springfield	Human	Drugs & Pharmaceuticals
Daya Drug Discoveries	MO	St. Louis	Human	Drugs & Pharmaceuticals
Donald L Reynolds Phd & Associates Inc	MO	Lees Summit	Human	Drugs & Pharmaceuticals
Ekg Life Science Solutions	MO	St. Louis	Human	Drugs & Pharmaceuticals
Electronic Drug Information Systems Solutions	MO	St. Louis	Human	Drugs & Pharmaceuticals
Emd Millipore Corp	MO	St. Charles	Human	Drugs & Pharmaceuticals
Epigenetx	MO	St. Louis	Human	Drugs & Pharmaceuticals
Eudises	MO	St. Louis	Human	Drugs & Pharmaceuticals
Fimbrion Therapeutics	MO	St. Louis	Human	Drugs & Pharmaceuticals
Forest Pharmaceuticals Inc	MO	Earth City	Human	Drugs & Pharmaceuticals
Galera Therapeutics	MO	St. Louis	Human	Drugs & Pharmaceuticals
Gallus (Patheon)	MO	St. Louis	Human	Biologicals / Vaccines
Generico	MO	St. Louis	Human	Drugs & Pharmaceuticals
Glaxosmithkline	MO	St. Louis	Human	Drugs & Pharmaceuticals
Global Epidemiology Services Llc	MO	Kansas City	Human	Drugs & Pharmaceuticals
Healthcare Research	MO	Hazelwood	Human	Drugs & Pharmaceuticals

<u>Company</u>	<u>State</u>	<u>City</u>	<u>Segment</u>	<u>Sub-Segment</u>
High Plains Holdings, Llc	MO	Chesterfield	Human	Drugs & Pharmaceuticals
Highland Pharmaceuticals	MO	St. Louis	Human	Drugs & Pharmaceuticals
Immunophotonics Inc	MO	Columbia	Human	Drugs & Pharmaceuticals
Integrated Biotech Solutions	MO	Kansas City	Human	Drugs & Pharmaceuticals
Ionic Transport Assays	MO	St. Louis	Human	Drugs & Pharmaceuticals
Isto Technologies	MO	St. Louis	Human	Biologicals / Vaccines
Janssen Biotech	MO	St. Louis	Human	Drugs & Pharmaceuticals
Jost Chemical Co	MO	St. Louis	Human	Drugs & Pharmaceuticals
Kereos	MO	St. Louis	Human	Drugs & Pharmaceuticals
Kypha	MO	St. Louis	Human	Biologicals / Vaccines
Legacy Pharmaceutical Packaging	MO	Earth City	Human	Drugs & Pharmaceuticals
Leinco Technologies Inc	MO	Fenton	Human	Drugs & Pharmaceuticals
Linco Research Incorporated	MO	St. Charles	Human	Drugs & Pharmaceuticals
Long Pharmaceuticals	MO	Fenton	Human	Drugs & Pharmaceuticals
Lumara Health Ltd	MO	Bridgeton	Human	Drugs & Pharmaceuticals
Lynxess	MO	St. Louis	Human	Drugs & Pharmaceuticals
Mallinckrodt Llc	MO	Hazelwood	Human	Drugs & Pharmaceuticals
Marcus Research Laboratory	MO	St. Louis	Human	Drugs & Pharmaceuticals
Medibeacon, Llc	MO	St. Louis	Human	Drugs & Pharmaceuticals
Mediniche Inc	MO	Chesterfield	Human	Drugs & Pharmaceuticals
Missouri Analytical Laboratories Inc	MO	St. Louis	Human	Drugs & Pharmaceuticals
Mobius Therapeutics, Llc	MO	St. Louis	Human	Drugs & Pharmaceuticals
Montgomery Labs	MO	Festus	Human	Drugs & Pharmaceuticals
Nanovir	MO	St. Louis	Human	Drugs & Pharmaceuticals
Nesher Pharmaceuticals (Usa) Llc	MO	Bridgeton	Human	Drugs & Pharmaceuticals
Nomax Inc	MO	St. Louis	Human	Drugs & Pharmaceuticals
Nostrum Laboratories	MO	Kansas City	Human	Drugs & Pharmaceuticals
Novartis Corp	MO	St. Louis	Human	Drugs & Pharmaceuticals
Nutraceuticals Corp	MO	St. Louis	Human	Drugs & Pharmaceuticals
Oral Genomics	MO	St. Louis	Human	Drugs & Pharmaceuticals
Parametric Associates Inc	MO	St. Louis	Human	Drugs & Pharmaceuticals
Particle Dynamics Inc	MO	St. Louis	Human	Drugs & Pharmaceuticals
Pcv Therapeutics	MO	St. Louis	Human	Biologicals / Vaccines
Pfizer	MO	St. Louis	Human	Drugs & Pharmaceuticals
Pharma Tech Industries	MO	Union	Human	Drugs & Pharmaceuticals
Pharmacon	MO	St. Louis	Human	Drugs & Pharmaceuticals

<u>Company</u>	<u>State</u>	<u>City</u>	<u>Segment</u>	<u>Sub-Segment</u>
Proteon Therapeutics	MO	Kansas City	Human	Drugs & Pharmaceuticals
Prozess Technologie	MO	St. Louis	Human	Drugs & Pharmaceuticals
Qps Bio-Kinetic	MO	Springfield	Human	Drugs & Pharmaceuticals
Reliable Biopharmaceutical Corp	MO	St. Louis	Human	Drugs & Pharmaceuticals
Sanofi Us	MO	St. Louis	Human	Drugs & Pharmaceuticals
Sensient Pharmaceutical Coating Systems	MO	St. Louis	Human	Drugs & Pharmaceuticals
Sequoia Vaccines	MO	St. Louis	Human	Biologicals / Vaccines
Seratouch	MO	St. Louis	Human	Drugs & Pharmaceuticals
Seventh Wave Laboratories Llc	MO	Chesterfield	Human	Drugs & Pharmaceuticals
Shear/Kershman Labs	MO	St. Louis	Human	Drugs & Pharmaceuticals
Singulex (Bioprofile)	MO	St. Louis	Human	Drugs & Pharmaceuticals
Sopharmia	MO	St. Joseph	Human	Drugs & Pharmaceuticals
Soy Labs Llc	MO	Mexico	Human	Drugs & Pharmaceuticals
Sparo Labs	MO	St. Louis	Human	Drugs & Pharmaceuticals
St Louis Center For Clinical Research	MO	St. Louis	Human	Drugs & Pharmaceuticals
St Louis Clinical Trials	MO	St. Louis	Human	Drugs & Pharmaceuticals
Sundance Clinical Research	MO	St. Louis	Human	Drugs & Pharmaceuticals
Symbiontics Inc	MO	St. Louis	Human	Drugs & Pharmaceuticals
Tansna Therapeutics	MO	St. Louis	Human	Drugs & Pharmaceuticals
Tapi-Missouri (Biocraft)	MO	St. Charles	Human	Drugs & Pharmaceuticals
Tensive Controls	MO	Columbia	Human	Drugs & Pharmaceuticals
Teva Neuroscience	MO	Kansas City	Human	Drugs & Pharmaceuticals
The Centromere Group	MO	St. Louis	Human	Drugs & Pharmaceuticals
Theramind Research	MO	St. Louis	Human	Drugs & Pharmaceuticals
Ther-Rx Corp	MO	St. Louis	Human	Drugs & Pharmaceuticals
Transamerica Product Technology	MO	St. Charles	Human	Drugs & Pharmaceuticals
Traxsson	MO	St. Louis	Human	Biologicals / Vaccines
Triumph Pharmaceuticals Inc	MO	St. Louis	Human	Drugs & Pharmaceuticals
Tullis Biotechnology	MO	Columbia	Human	Drugs & Pharmaceuticals
Tyco/Healthcare/Mallinckrodt	MO	Maryland Heights	Human	Drugs & Pharmaceuticals
Upaya Pharmaceuticals	MO	St. Louis	Human	Biologicals / Vaccines
Vasculox	MO	St. Louis	Human	Drugs & Pharmaceuticals
Wimmer Clinical Consulting Services	MO	Liberty	Human	Drugs & Pharmaceuticals
Woundfast Pharmaceuticals	MO	St. Louis	Human	Drugs & Pharmaceuticals
Xenos Inc	MO	St. Louis	Human	Drugs & Pharmaceuticals
Zeavision	MO	Chesterfield	Human	Drugs & Pharmaceuticals

EXHIBIT 3.J: MISSOURI – HUMAN – MEDICAL DEVICES & EQUIPMENT (71)

<u>Company</u>	<u>State</u>	<u>City</u>	<u>Segment</u>	<u>Sub-Segment</u>
A Scientific Co	MO	St. Louis	Human	Medical Devices & Equipment
Accuvein Inc	MO	Kansas City	Human	Medical Devices & Equipment
Ace Lab Systems	MO	St. Louis	Human	Medical Devices & Equipment
Acera Surgical Inc	MO	St. Louis	Human	Medical Devices & Equipment
Advanced Biomedical	MO	Chesterfield	Human	Medical Devices & Equipment
Ag Industries	MO	St. Louis	Human	Medical Devices & Equipment
Aim Laboratories Llc	MO	St. Louis	Human	Medical Devices & Equipment
Allied Healthcare Products Inc	MO	St. Louis	Human	Medical Devices & Equipment
Amcon Labcratories Nomax Inc	MO	St. Louis	Human	Medical Devices & Equipment
Anodyne Surgical	MO	O'Fallon	Human	Medical Devices & Equipment
Back-Mueller Inc	MO	St. Louis	Human	Medical Devices & Equipment
Bausch & Lomb Inc	MO	St. Louis	Human	Medical Devices & Equipment
Biomerieux	MO	Hazelwood	Human	Medical Devices & Equipment
Boston Scientific Corp	MO	St. Louis	Human	Medical Devices & Equipment
Brownmed Inc	MO	Kansas City	Human	Medical Devices & Equipment
Cardioptimus Llc	MO	Columbia	Human	Medical Devices & Equipment
Cook Gas Llc	MO	St. Louis	Human	Medical Devices & Equipment
Corelink Surgical	MO	St. Louis	Human	Medical Devices & Equipment
Endostim	MO	St. Louis	Human	Medical Devices & Equipment
Epi Squared	MO	St. Louis	Human	Medical Devices & Equipment
Eternogen	MO	Columbia	Human	Medical Devices & Equipment
Explor Bioventures, Llc	MO	St. Louis	Human	Medical Devices & Equipment
Fischer Surgical	MO	St. Louis	Human	Medical Devices & Equipment
General Physiotherapy Inc	MO	Earth City	Human	Medical Devices & Equipment
Hemco Corp	MO	Independence	Human	Medical Devices & Equipment
Idea Labs	MO	St. Louis	Human	Medical Devices & Equipment
Impedx	MO	Columbia	Human	Medical Devices & Equipment
Incoba Llc	MO	St. Louis	Human	Medical Devices & Equipment
Inx Medical	MO	Chesterfield	Human	Medical Devices & Equipment
J2 Scientific	MO	Columbia	Human	Medical Devices & Equipment
Katalyst Surgical	MO	Chesterfield	Human	Medical Devices & Equipment
Kogent Surgical	MO	Chesterfield	Human	Medical Devices & Equipment
Leica Biosystems St Louis Llc	MO	St. Louis	Human	Medical Devices & Equipment
Linscan Systems Inc	MO	Rolla	Human	Medical Devices & Equipment

<u>Company</u>	<u>State</u>	<u>City</u>	<u>Segment</u>	<u>Sub-Segment</u>
Magbiosense	MO	St. Louis	Human	Medical Devices & Equipment
Mager & Gougelman Of St Louis Inc	MO	St. Louis	Human	Medical Devices & Equipment
Medical Concepts Inc	MO	Jefferson City	Human	Medical Devices & Equipment
Medical Technologies Co	MO	St. Louis	Human	Medical Devices & Equipment
Micro Medical Instruments Inc	MO	St. Louis	Human	Medical Devices & Equipment
Midsci	MO	St. Louis	Human	Medical Devices & Equipment
Multidata Systems International	MO	Bridgeton	Human	Medical Devices & Equipment
Nanopore Diagnostics	MO	St. Louis	Human	Medical Devices & Equipment
Nanova Med	MO	Columbia	Human	Medical Devices & Equipment
Neuroolutions	MO	St. Louis	Human	Medical Devices & Equipment
Nichiryo America	MO	Earth City	Human	Medical Devices & Equipment
North Central Instruments - Missouri	MO	Columbia	Human	Medical Devices & Equipment
Ocuscience	MO	Rolla	Human	Medical Devices & Equipment
Orion Genomics Llc	MO	St. Louis	Human	Medical Devices & Equipment
Ozark Prosthetics And Othotics	MO	Monett	Human	Medical Devices & Equipment
Pepex Biomedical	MO	Climax Springs	Human	Medical Devices & Equipment
Progen Biologics Llc	MO	Ballwin	Human	Medical Devices & Equipment
Psl Fabrication Llc	MO	Fulton	Human	Medical Devices & Equipment
Pulse Therapeutics	MO	St. Louis	Human	Medical Devices & Equipment
R2Fact Product Development Inc	MO	Kansas City	Human	Medical Devices & Equipment
Retectix Llc	MO	St. Louis	Human	Medical Devices & Equipment
Rhein Manufacturing	MO	St. Louis	Human	Medical Devices & Equipment
Scinomix Llc	MO	Earth City	Human	Medical Devices & Equipment
Southwest Technologies	MO	North Kansas City	Human	Medical Devices & Equipment
Spectrum Perception Llc	MO	St. Charles	Human	Medical Devices & Equipment
Stereotaxis	MO	St. Louis	Human	Medical Devices & Equipment
Stryker Corp	MO	St. Louis	Human	Medical Devices & Equipment
Synergetics	MO	O'Fallon	Human	Medical Devices & Equipment
Synerz Medical	MO	St. Louis	Human	Medical Devices & Equipment
Tabor Plastics Co	MO	St. Louis	Human	Medical Devices & Equipment
Taylor Industries Inc	MO	Jefferson City	Human	Medical Devices & Equipment
Taylor Scientific	MO	St. Louis	Human	Medical Devices & Equipment
U2D Incorporated	MO	Liberty	Human	Medical Devices & Equipment
Us Photonics Inc	MO	Springfield	Human	Medical Devices & Equipment
Veniti	MO	St. Louis	Human	Medical Devices & Equipment
Veran Medical Technologies	MO	St. Louis	Human	Medical Devices & Equipment
Xcellcure Llc	MO	St. Louis	Human	Medical Devices & Equipment

EXHIBIT 3.K: MISSOURI – HUMAN – RESEARCH, TESTING & MEDICAL LABORATORIES (56)

<u>Company</u>	<u>State</u>	<u>City</u>	<u>Segment</u>	<u>Sub-Segment</u>
Aaipharma Services Corp	MO	St. Louis	Human	Research, Testing & Medical Laboratories
Acceleration Laboratory Services Inc	MO	Lees Summit	Human	Research, Testing & Medical Laboratories
Advanced Biomedical Laboratories Ltd	MO	Kansas City	Human	Research, Testing & Medical Laboratories
Alburtylab Inc	MO	Drexel	Human	Research, Testing & Medical Laboratories
Ams Lab	MO	St. Louis	Human	Research, Testing & Medical Laboratories
Analytical Testing Service Laboratories Inc	MO	Joplin	Human	Research, Testing & Medical Laboratories
Antibody Research Corporation	MO	St. Charles	Human	Research, Testing & Medical Laboratories
Appistry	MO	St. Louis	Human	Research, Testing & Medical Laboratories
Assau Pro Llc	MO	Winfield	Human	Research, Testing & Medical Laboratories
Biomed Valley Discoveries Inc	MO	Kansas City	Human	Research, Testing & Medical Laboratories
Biomedical Systems	MO	St. Louis	Human	Research, Testing & Medical Laboratories
Cancer Research Center	MO	Columbia	Human	Research, Testing & Medical Laboratories
Ce2L	MO	Lees Summit	Human	Research, Testing & Medical Laboratories
Center For Pharmaceutical Research Pc	MO	Kansas City	Human	Research, Testing & Medical Laboratories
Certus International	MO	St. Louis	Human	Research, Testing & Medical Laboratories
Chemir Analytical Services	MO	Maryland Heights	Human	Research, Testing & Medical Laboratories
Clinical Research Center	MO	St. Louis	Human	Research, Testing & Medical Laboratories
Cofactor Genomics	MO	St. Louis	Human	Research, Testing & Medical Laboratories
Core Devices Inc	MO	Chesterfield	Human	Research, Testing & Medical Laboratories
Covidien Lp	MO	St. Louis	Human	Research, Testing & Medical Laboratories
Dadson Corporation	MO	Grain Valley	Human	Research, Testing & Medical Laboratories
Dna Polymerase Technology Inc	MO	St. Louis	Human	Research, Testing & Medical Laboratories
Dynalab	MO	St. Louis	Human	Research, Testing & Medical Laboratories
Dynatek Dalta	MO	Galena	Human	Research, Testing & Medical Laboratories
Ehrhardt Clinical Research Llc	MO	Belton	Human	Research, Testing & Medical Laboratories
Eurofins	MO	St. Charles	Human	Research, Testing & Medical Laboratories
Gateway Pharmacology Laboratories	MO	Chesterfield	Human	Research, Testing & Medical Laboratories
Hera, Inc.	MO	St. Louis	Human	Research, Testing & Medical Laboratories

<u>Company</u>	<u>State</u>	<u>City</u>	<u>Segment</u>	<u>Sub-Segment</u>
Inovatia Laboratories Llc	MO	Fayette	Human	Research, Testing & Medical Laboratories
Itamark Diagnostics Llc	MO	Columbia	Human	Research, Testing & Medical Laboratories
Jem Biotech	MO	Chesterfield	Human	Research, Testing & Medical Laboratories
Labconco Corp	MO	Kansas City	Human	Research, Testing & Medical Laboratories
Lamda Biotech Inc	MO	St. Louis	Human	Research, Testing & Medical Laboratories
Ma Tech Services	MO	St. Louis	Human	Research, Testing & Medical Laboratories
Managex Consulting	MO	Blue Springs	Human	Research, Testing & Medical Laboratories
Medical Guidance Systems Llc	MO	St. Louis	Human	Research, Testing & Medical Laboratories
Mercy R&D	MO	Springfield	Human	Research, Testing & Medical Laboratories
Microbe Scan Llc.	MO	St. Louis	Human	Research, Testing & Medical Laboratories
Midwest Analytical Inc	MO	St. Louis	Human	Research, Testing & Medical Laboratories
Mogene Lc	MO	Columbia	Human	Research, Testing & Medical Laboratories
Mriglobal	MO	North Kansas City	Human	Research, Testing & Medical Laboratories
O'Neal Scientific Service Inc	MO	St. Louis	Human	Research, Testing & Medical Laboratories
Oral Seyer Pathology	MO	Florissant	Human	Research, Testing & Medical Laboratories
Osage Biotech	MO	Berger	Human	Research, Testing & Medical Laboratories
P. J. Cobert Associates	MO	Chesterfield	Human	Research, Testing & Medical Laboratories
Pps Clinical Research Stl Llc	MO	Chesterfield	Human	Research, Testing & Medical Laboratories
Primogenix Inc	MO	Laurie	Human	Research, Testing & Medical Laboratories
Radiant Research Inc	MO	St. Louis	Human	Research, Testing & Medical Laboratories
Red Flag Biosensing Llc	MO	Columbia	Human	Research, Testing & Medical Laboratories
Rissali Llc	MO	Ballwin	Human	Research, Testing & Medical Laboratories
Sarmont	MO	St. Louis	Human	Research, Testing & Medical Laboratories
Stowers Institute For Medical Research	MO	Kansas City	Human	Research, Testing & Medical Laboratories
The Clinical Research Center Inc	MO	St. Louis	Human	Research, Testing & Medical Laboratories
University Genomics	MO	St. Louis	Human	Research, Testing & Medical Laboratories
Viracor Ibt	MO	Lees Summit	Human	Research, Testing & Medical Laboratories
Wyrick Technologies	MO	Independence	Human	Research, Testing & Medical Laboratories

EXHIBIT 3.L: MISSOURI – HUMAN – ALL OTHERS (27)

<u>Company</u>	<u>State</u>	<u>City</u>	<u>Segment</u>	<u>Sub-Segment</u>
Ab Bioscience Llc	MO	St. Louis	Human	Bio-Science Related Distribution
Analome Inc.	MO	St. Louis	Human	Software / Health Information Applications
Assaypro Llc	MO	St. Charles	Human	Bio-Science Related Distribution
Biokyowa Inc	MO	Cape Girardeau	Human	Bio-Science Related Distribution
Biologix Systems Corp	MO	St. Louis	Human	Bio-Science Related Distribution
Biomine, Llc	MO	St. Louis	Human	Software / Health Information Applications
Biorankings	MO	St. Louis	Human	Software / Health Information Applications
Ez Bioresearch Llc	MO	St. Louis	Human	Bio-Science Related Distribution
Gateway Medical Research Inc	MO	St. Charles	Human	Bio-Science Related Distribution
Gold Biotechnology	MO	St. Louis	Human	Bio-Science Related Distribution
Graematter	MO	Ballwin	Human	Software / Health Information Applications
Healthyme Moblie Solutions	MO	St. Louis	Human	Software / Health Information Applications
Horizon Discovery	MO	St. Louis	Human	Bio-Science Related Distribution
Lee Biosolutions	MO	St. Louis	Human	Bio-Science Related Distribution
Lickenbrock Technologies	MO	St. Louis	Human	Software / Health Information Applications
Mayflower Bioscience, Llc	MO	St. Louis	Human	Bio-Science Related Distribution
Mediprocity	MO	Chesterfield	Human	Software / Health Information Applications
Mediware Information Systems	MO	High Ridge	Human	Software / Health Information Applications
Medsocket	MO	Columbia	Human	Software / Health Information Applications
Nanos Technologies	MO	Columbia	Human	Bio-Science Related Distribution
Pieriandx	MO	St. Louis	Human	Software / Health Information Applications
Romer Labs Inc	MO	Union	Human	Agricultural & Food Products
Scimart	MO	Chesterfield	Human	Bio-Science Related Distribution
Sigma Aldrich Corp	MO	St. Louis	Human	Bio-Science Related Distribution
Smartcare Consultants	MO	St. Charles	Human	Software / Health Information Applications
Solae Llc	MO	St. Louis	Human	Agricultural & Food Products
Tse Systems	MO	Chesterfield	Human	Bio-Science Related Distribution

EXHIBIT 3.M: NEBRASKA – HUMAN - DRUGS & PHARMACEUTICALS/BIOLOGICALS/VACCINES (20)

<u>Company</u>	<u>State</u>	<u>City</u>	<u>Segment</u>	<u>Sub-Segment</u>
Abs Corporation	NE	Omaha	Human	Drugs & Pharmaceuticals
American Laboratories Inc	NE	Omaha	Human	Drugs & Pharmaceuticals
Bd Pharmaceutical Systems	NE	Columbus	Human	Drugs & Pharmaceuticals
Bioiberica Nebraska Inc	NE	Geneva	Human	Drugs & Pharmaceuticals
Essential Pharmacy Compounding	NE	Omaha	Human	Drugs & Pharmaceuticals
Exoemis Inc	NE	Omaha	Human	Drugs & Pharmaceuticals
Great Plains Biotechnology	NE	Roca	Human	Drugs & Pharmaceuticals
Ground Fluor Pharmaceuticals	NE	Lincoln	Human	Drugs & Pharmaceuticals
Jn International	NE	Omaha	Human	Biologicals / Vaccines
Lnk Chemsolutions	NE	Lincoln	Human	Drugs & Pharmaceuticals
Nature Technology Corp	NE	Lincoln	Human	Biologicals / Vaccines
Novel Chemical Solutions	NE	Crete	Human	Drugs & Pharmaceuticals
Platte Valley Scientific Llc	NE	Gothenburg	Human	Drugs & Pharmaceuticals
Protransit Nanotherapy	NE	Omaha	Human	Drugs & Pharmaceuticals
Quality Clinical Research Llc	NE	Omaha	Human	Drugs & Pharmaceuticals
Silliker Inc	NE	Omaha	Human	Drugs & Pharmaceuticals
Transgenomic Inc	NE	Omaha	Human	Biologicals / Vaccines
Unemed Corp	NE	Omaha	Human	Drugs & Pharmaceuticals
Vireo Resources	NE	Plattsmouth	Human	Drugs & Pharmaceuticals
West Pharmaceutical Services	NE	Kearney	Human	Drugs & Pharmaceuticals

EXHIBIT 3.N: NEBRASKA – HUMAN - MEDICAL DEVICES & EQUIPMENT (7)

<u>Company</u>	<u>State</u>	<u>City</u>	<u>Segment</u>	<u>Sub-Segment</u>
Becton Dickinson And Company	NE	Holdrege	Human	Medical Devices & Equipment
Northstar Surgical Inc	NE	Omaha	Human	Medical Devices & Equipment
Sodhouse Corp	NE	Lincoln	Human	Medical Devices & Equipment
Stanley Healthcare Solutions	NE	Lincoln	Human	Medical Devices & Equipment
Streck Inc	NE	Omaha	Human	Medical Devices & Equipment
Thera Nova	NE	Lincoln	Human	Medical Devices & Equipment
Virtual Incision Corp	NE	Lincoln	Human	Medical Devices & Equipment

EXHIBIT 3.O: NEBRASKA – HUMAN - RESEARCH, TESTING & MEDICAL LABORATORIES (10)

<u>Company</u>	<u>State</u>	<u>City</u>	<u>Segment</u>	<u>Sub-Segment</u>
Celerion	NE	Lincoln	Human	Research, Testing & Medical Laboratories
Evergreen Consulting Group, Llc	NE	Omaha	Human	Research, Testing & Medical Laboratories
Icon Clinical Research	NE	Omaha	Human	Research, Testing & Medical Laboratories
Meridian Clinical Research Llc	NE	Omaha	Human	Research, Testing & Medical Laboratories
Missouri Valley Cancer Consortium	NE	Omaha	Human	Research, Testing & Medical Laboratories
Primus Sterilizer Company	NE	Omaha	Human	Research, Testing & Medical Laboratories
Schmeckle Research	NE	Lincoln	Human	Research, Testing & Medical Laboratories
Somnos Laboratories Inc	NE	Lincoln	Human	Research, Testing & Medical Laboratories
The Nebraska Foundation For Spinal Research	NE	Omaha	Human	Research, Testing & Medical Laboratories
Unemed Solutions Corp	NE	Omaha	Human	Research, Testing & Medical Laboratories



EXHIBIT 3.P: NEBRASKA – HUMAN – ALL OTHERS (3)

<u>Company</u>	<u>State</u>	<u>City</u>	<u>Segment</u>	<u>Sub-Segment</u>
Compression Dynamics	NE	Omaha	Human	Bio-Science Related Distribution
Crumb Technologies	NE	Omaha	Human	Software / Health Information Applications
Prairie Ventures Llc	NE	Omaha	Human	Software / Health Information Applications

EXHIBIT 4: UNIVERSITY ASSET LISTINGS

EXHIBIT 4.A: IOWA UNIVERSITY ASSETS (105)

<u>Grinnell College, Grinnell, IA</u>
Center for Prairie Studies
<u>Iowa State University, Ames, IA</u>
Agricultural Marketing Resource Center (AgMRC)
Ames Laboratory of U.S. Department of Energy
Beginning Farmer Center (BFC)
Bioeconomy Institute (BEI) - Biobased Industry Center
Bioeconomy Institute (BEI) - Center for Sustainable Environmental Technologies (CSET)
Biosafety Institute for Genetically Modified Agricultural Products (BIGMAP)
Center for Advanced Host Defenses, Immunobiotics, and Translational Comparative Medicine (CAHDIT)
Center for Agricultural & Rural Development (CARD)
Center for Agricultural History
Center for Biorenewable Chemicals (CBiRC)
Center for Carbon Capturing Crops (C2C2)
Center for Catalysis (CCAT)
Center for Excellence in Science, Mathematics and Engineering Education (CESME)
Center for Food Security and Public Health (CFSPH)
Center for Integrated Animal Genomics (CIAG)
Center for Metabolic Biology (CMB)
Community Vitality Center (CVC)
Egg Industry Center
Food and Agricultural Policy Research Institute (FAPRI)
Institute for International Cooperation in Animal Biologics (IICAB)
Iowa Agriculture and Home Economics Experiment Station
Iowa Beef Center (IBC)
Iowa Center for Advanced Neurotoxicology (ICAN)
Iowa Energy Center (IEC)
Iowa Nutrient Research Center
Iowa Pork Industry Center (IPIC)
Iowa Soybean Research Center
Iowa State University College Research Units - Agriculture
Iowa State University College Research Units - Human Sciences
Iowa State University College Research Units - Liberal Arts and Sciences
Iowa State University College Research Units - Veterinary Medicine
Iowa Water Center (IWC)
Leopold Center for Sustainable Agriculture
Materials Preparation Center (MPC)
Microelectronics Research Center (MRC)
Midwest Agribusiness Trade Research & Information Center (MATRIC)
Midwest Forensics Resource Center (MFRC)
Midwest Grape and Wine Industry Institute
North Central Regional Aquaculture Center (NCRAC)
Nutrition and Wellness Research Center (NWRC)
Office of Biotechnology - Biotechnology Outreach Education Center (BOEC)
Plant Sciences Institute (PSI) - Center for Crops Utilization Research (CCUR)
Plant Sciences Institute (PSI) - Center for Plant Genomics (CPG)
Plant Sciences Institute (PSI) - Center for Plant Responses to Environmental Stresses (CPRES)
Plant Sciences Institute (PSI) - Center for Plant Transformation (CPT)
Plant Sciences Institute (PSI) - Laurence H. Baker Center for Bioinformatics and Biological Statistics
Plant Sciences Institute (PSI) - Raymond F. Baker Center for Plant Breeding
Plant Sciences Institute (PSI) - Seed Science Center
Seed Science Center
Swine Medicine Education Center
Veterinary Medical Research Institute (VMRI)

University of Iowa, Iowa City, IA

Biostatistics Consulting Center
BioVentures Center
Carver Center for Genomics
Center for Auditory Regeneration and Deafness
Center for Biocatalysis and Bioprocessing
Center for Bioinformatics and Computational Research
Center for Computational Nursing
Center for Education and Research on Therapeutics (CERT)
Center for Emerging Infectious Diseases
Center for Environmentally Beneficial Catalysis
Center for Functional Genomics of Hypertension
Center for Gene Therapy of Cystic Fibrosis and Other Genetic Diseases
Center for Genetics
Center for Health Effects of Environmental Contamination
Center for Immunology and Immune Based Diseases
Center for Implant Dentistry
Center for Improving Medication Use in the Community
Center for Nursing Classification and Clinical Effectiveness (NIC/NOC)
Center for Nursing Informatics
Center on Aging
Cleft Palate and Craniofacial Center
Clinical Trials Statistical & Data Management Center
Comprehensive Lung Imaging Center
Dental Clinical Research Center
Dows Institute for Dental Research
Environmental Health Sciences Research Center
George M. O'Brien Kidney Research Center
Gerontological Nursing Interventions Research Center
Great Plains Center for Agricultural Health
Hartford Center of Geriatric Nursing Excellence
Health Effectiveness Research Center
Helen C. Levitt Center for Viral Pathogenesis
Holden Comprehensive Cancer Center
Huntington's Disease Center
Institute for Nursing Knowledge
Iowa Cancer Registry
Iowa Cardiovascular Center
Iowa Institute for Biomedical Imaging
Nutrition Center
Optical Science Technology Center (OSTC)
Photopolymerization Center
Prevention Research Center for Rural Health (PRC)
Specialized Center of Research in Osteoarthritis
The Carver Family Center for Macular Degeneration
The Nanoscience and Nanotechnology Institute at UI
UI Organ Transplant Center
Upper Midwest Center for Public Health Preparedness
Upper Midwest Public Health Training Center
Wellstone Muscular Dystrophy Cooperative Research Centers

University of Northern Iowa, Cedar Falls, IA

Center for Energy and Environmental Education
Iowa Center on Health Disparities (ICHHD)
Mathematics and Science Education Institute Coordination and Advancement Center
National Ag-Based Lubricants Center

EXHIBIT 4.B: KANSAS UNIVERSITY ASSETS (95)

<u>Emporia State University, Emporia, KS</u>
Center for Great Plains Studies
<u>Kansas State University, Manhattan, KS</u>
Arthropod Genomics Center
Beef Cattle Institute
Behavior and Herpetology Laboratory
Bioinformatics Center
BioProcessing and Industrial Value Added Program
Biosecurity Research Institute - BRI
Biotechnology Core Facility
Cancer Research
Center for Biobased Polymers by Design
Center for Sustainable Energy
Center of Biomedical Research Excellence (COBRE)
Center on Aging
Ecological Physiology Laboratory
Food Safety & Security
Functional Genomics Consortium
Grassland Herbivore Laboratory
Institute for Environmental Research
Institute of Computational Comparative Medicine
Integrated Genomics Facility
International Grains Program
Kansas Center for Agricultural Resources and the Environment - KCARE
Kansas Cooperative Fish and Wildlife Research Unit
Kansas Lipidomics Research Center
Konza Prairie Biological Station
K-State Integrated Genomics Facility (IGF)
K-State Microscopy Facility
K-State Olathe
Laboratory for Landscape and Conservation Ecology
Michel Laboratory
Midwest Institute for Comparative Stem Cell Biology
Molecular Virology
Morgan Laboratory
Museum of Entomological and Prairie Arthropod Research
Nanotechnology Innovation Center (NICKS)
National Environmental Evaluation and Remediation Consortium
Science Education
Wheat Genetics Resource Center
Wildlife Community Laboratory

Kansas University Medical Center, Kansas City, KS

Cardiovascular Research Institute
 Center for Child Health and Development
 Center for Children's Healthy Lifestyles and Nutrition
 Center for Epigenetics and Stem Cell Biology
 Center for Healthcare Informatics
 Center for Outcomes Research & Education
 Center for Reproductive Sciences
 Center for TeleMedicine & TeleHealth
 Center for Viral Oncology
 Frontiers: The Heartland Institute for Clinical and Translational Research
 Høglund Brain Imaging Center
 Institute for Advancing Medical Innovation
 Institute for Neurological Discoveries
 Institute for Reproductive Health and Regenerative Medicine
 Kansas IDeA Network of Biomedical Research Excellence
 Kansas Intellectual and Developmental Disabilities Research Center
 Kidney Institute
 KU Alzheimer's Disease Center
 KU Clinical Research Center
 KU Diabetes Institute
 Landon Center on Aging
 Liver Center
 Midwest Stem Cell Center
 Program in Integrative Medicine
 University of Kansas Cancer Center

Pittsburg State University, Pittsburg, KS

Kansas Polymer Research Center

University of Kansas, Lawrence, KS

Adams Institute for Bioanalytical Chemistry
 Biodiversity Institute
 Bioengineering Research Center
 Center for Environmentally Beneficial Catalysis
 Center for Research on Learning
 Center for Technology Commercialization
 Higuchi Biosciences Center - Center for Biomedical Research Excellence in Cancer Experimental Therapeutics
 Higuchi Biosciences Center - Center for Biomedical Research Excellence in Molecular Analysis of Disease Pathways
 Higuchi Biosciences Center - Center for Biomedical Research Excellence in Protein Structure and Function
 Higuchi Biosciences Center - KU Alzheimer's Disease Center - Mitochondrial Genomics and Metabolism Core
 Higuchi Biosciences Center - Legacy Continuation of the Center of Excellence in Chemical Methodologies and Libraries Development
 Higuchi Biosciences Center - Program Project on Aging
 Higuchi Biosciences Center - Program Project on Cellular Cofactors, Neuronal Stress & Rescue, Aging & Alzheimer Disease
 Higuchi Biosciences Center - Program Project on Mining the Aspergillus Nidulans Secondary Metabolome
 Higuchi Biosciences Center - Specialized Chemistry Center
 Information & Telecommunication Technology Center (ITTC) - Bioinformatics and Computational Life Sciences Laboratory
 Life Span Institute - Beach Center on Disability
 Life Span Institute - Biobehavioral Neurosciences in Communication Disorders Center
 Life Span Institute - Center for Physical Activity and Weight Management
 Life Span Institute - Gerontology Center
 Life Span Institute - Kansas Center for Autism Research and Training
 Life Span Institute - Kansas Intellectual and Developmental Disabilities Research Center
 Life Span Institute - Kansas University Center on Developmental Disabilities
 Life Span Institute - Research and Training Center on Independent Living
 Applied Psychology Research Institute
 Center for Energy Studies
 Center for Physical Activity and Aging
 Center of Innovation for Biomaterials in Orthopaedic Research
 Ennovar
 Regional Institute on Aging

EXHIBIT 4.C: MISSOURI UNIVERSITY ASSETS (108)

Kansas City University of Medicine and Biosciences, Kansas City, MO

Center for Clinical Competence
 Disaster Life Support Training
 Dybedal Clinical Research Center
 Score 1 for Health

Missouri State University, Springfield, MO

Center for Biomedical and Life Sciences
 Center for Grapevine Biotechnology
 Ozarks Public Health Institute

Missouri University of Science & Technology

Center for Biomedical Science and Engineering (CBSE)
 Center for Environmental Science and Technology (CEST)
 Environmental Research Center for Emerging Contaminants (ERCEC)

Saint Louis University, St. Louis, MO

Animal Imaging Core
 Center for Vaccine Development
 Center for World & Health Medicine
 Flow Cytometry Research Core
 Micro Array Core
 Research Microscopy Core

Southeast Missouri State University, Cape Girardeau, MO

Center for Environmental Analysis

University of Central Missouri, Warrensburg, MO

Gerontology Institute

University of Missouri - Columbia, Columbia, MO

Center for Agroforestry
 Center for Applied Research and Environmental Systems (CARES)
 Center for Health Care Quality
 Christopher S. Bond Life Sciences Center
 Dalton Cardiovascular Research Center
 Ellis Fishel Cancer Center (clinical trials)
 Health Activity Center
 Health and Behavior Risk Research Center
 Institute for Clinical and Translational Science
 Institute for Continental Climate Viticulture and Enology
 Interdisciplinary Center on Aging
 Interdisciplinary Plant Group
 International Institute of Nano and Molecular Medicine
 Laboratory for Infectious Disease Research (BSL3-level laboratory and animal research center)
 Missouri Innovation Center
 MU Research Reactor
 Mutant Mouse Regional Resource Center (NIH)
 National Center for Gender Physiology
 National Center for Soybean Biotechnology
 National Swine Resource and Research Center (NIH)
 Rat Resource and Research Center (NIH)
 Regional Biocontainment Laboratory
 Research Center for Human-Animal Interactions
 Research Reactor Center
 Sciences Industry Census -- 2012
 Thompson Center for Autism and Neurodevelopmental Disorders
 University of Missouri Bioinformatics Consortium (UMBC)

University of Missouri - Kansas City, Kansas City, MO

Center for Aging Studies
Center for Economic Information
Center for Health Insights
Center for Research on Interfacial Structure and Properties (UMKC-CRISP)
Center of Excellence in the Study of Dental and Musculoskeletal Tissues (CEMT)
Institute for Human Development
National Center of Excellence in Women's Health
Shock Trauma Research Center
Vision Research Center

University of Missouri - St. Louis, St. Louis, MO

Center for Eye Care
Center for Human Origin and Cultural Diversity
Center for Nanoscience
Center for Neurodynamics
Center for Trauma Recovery
E. Desmond Lee Technology & Learning Center
Institute for Women's and Gender Studies
ITE: Innovative Technology Enterprises at UMSL
Medicinal Chemistry Group
Missouri Institute of Mental Health
Whitney R. Harris World Ecology Center

Washington University - St. Louis, St. Louis, MO

Biologic Therapeutics Center
Biosafety Level 3 Laboratory
BRIGHT Institute (Bridging Research with Imaging, Genomics and High Throughput)
Cardiac Bioelectricity & Arrhythmia Center (CBAC)
Center for Biomedical Informatics
Center for Clinical Imaging Research
Center for Clinical Studies
Center for Genome Sciences & Systems Biology
Center for Health Policy
Center for High Performance Computing
Center for Materials Innovation
Center for the Investigation of Membrane Excitability Disorders — The EXCITE Center
Center for Study of Itch
Center for Women's Infectious Disease Research (cWIDR)
Center of Regenerative Medicine
Cyclotron Facility
Diabetic Cardiovascular Disease Center (DCDC)
Flow Cytometry Facility
Genome Institute
Genome Technology Access Center (GTAC)
Genomics & Pathology Service (GPS)
Harvey A. Friedman Center for Aging
Hope Center
Hope Center Program on Protein Aggregation and Neurodegeneration (HPAN)
Institute for Public Health
Institute of Clinical and Translational Sciences
Institute of Materials Science & Engineering
Intellectual and Developmental Disability Research Center
International Center for Advanced Renewable Energy and Sustainability (I-CARES)
Knight Alzheimer's Disease Research Center
McDonnell Academy Global Energy and Environmental Partnership (MAGEEP)
Midwest Regional Center of Excellence for Biodefense and Emerging Infectious Diseases Research
Molecular Imaging Center (Mallinckrodt Institute of Radiology)
Nano Research Facility (NRF)
Neurofibromatosis Center
Photosynthetic Antenna Research Center
School of Engineering & Applied Science
Siteman Cancer Center (School of Medicine and BJC HealthCare)
The Children's Discovery Institute
The Consortium for Clean Coal Utilization
Tyson Research Center
Washington University Pain Center
Zebrafish Facility

EXHIBIT 4.D: NEBRASKA UNIVERSITY ASSETS (81)

Creighton University, Omaha, NE

Allergy and Immunology
 Biostatistical Core
 Cancer Center
 Center for Clinical and Translational Science (CCTS)
 Confocal Microscopy Core
 Flow Cytometry Core
 Health Policy & Ethics
 Hereditary Cancer Center
 Histology Core
 Molecular Biology Research Core
 Nebraska Center for Cell Biology
 Osteoporosis Research Center
 Research in Anti-Infective & Biotechnology
 The Cardiac Center

University of Nebraska - Lincoln, NE

Biological Process Development Facility - Analytical Methods Laboratory
 Biological Process Development Facility - Fermentation Development Laboratory
 Biological Process Development Facility - Protein Purification Development Laboratory
 Biomedical and Obesity Research Core Facility
 Center for Biotechnology - Bioinformatics Core Research Facility (BCRF)
 Center for Biotechnology - Genomics Core Research Facility
 Center for Biotechnology - Morrison Microscopy Core Research Facility
 Center for Biotechnology - Nebraska Center for Mass Spectrometry
 Center for Biotechnology - Plant Transformation Core Research Facility
 Center for Biotechnology - Proteomics and Metabolomics
 Center for Brain, Biology and Behavior
 Extreme Light Core Facility
 Food Allergy Research and Resource Program (FARRP)
 Food Processing Center
 Holland Computing Center
 Nebraska Bioenergy Facility
 Nebraska Center for Materials and Nanoscience - Cryogenics
 Nebraska Center for Materials and Nanoscience - Electron Microscopy
 Nebraska Center for Materials and Nanoscience - Nanofabrication
 Nebraska Center for Materials and Nanoscience - Scanning Probe Microscopy
 Nebraska Center for Materials and Nanoscience - X-Ray Structural Characterization
 Nebraska Center for Virology - Flow Cytometry
 Nebraska Innovation Campus
 Redox Biology Center - Macromolecular Crystallography Laboratory
 Redox Biology Center - Proteomics and Metabolomics Core Facility
 Redox Biology Center - Spectroscopy and Biophysics Core
 Research Instrumentation NMR Facility
 Social and Behavioral Sciences Research Consortium
 Water Sciences Laboratory

University of Nebraska - Omaha, NE

Bioinformatics Core Facility
 Biomechanics Research Building - Center for Research in Human Movement Variability
 Callitrichid Research Center

University of Nebraska Medical Center, Omaha, NE

Biocontainment Facility
Biologics Production Facility
Biomedical Informatics Facility
Center for Biosecurity, Biopreparedness & Emerging Infectious Disease
Center for Clinical and Translational Research
Center for Collaboration on Research Design and Analysis (CCORDA)
Center for Drug Delivery and Nanomedicine
Center for Environmental Health & Toxicology
Center for Global Health & Development
Center for Integrative and Translational Neuroscience
Center for Neurodegenerative Disorders
Center for Reducing Health Disparities
Center for Research in Leukemia and Lymphoma
Center for Staphylococcal Research
Clinical Movement Analysis Laboratory
Clinical Research Center
DNA Microarray Core Facility
Electron Microscopy Research Facility
Eppley Cancer Center Clinical Trials Office
Eppley Cancer Center Protocol Review and Monitoring System
Flow Cytometry Research Facility
Fred & Pamela Buffet Cancer Center
Human Genetics Laboratory
Molecular Biology and HTS Facility
Mutation and Methylation Analysis Facility
Nanoimaging Core Facility
Nanomaterials Characterization Core Facility
National Ebola Training Center
National Strategic Research Institute
Nebraska Biobank
Nebraska Biomechanics Core Facility
Nebraska Center for Cellular Signaling
Nebraska Nanomedicine Production Plant
Protein Structure Facility
Tissues Science Facility
UNMC Advanced Microscope Core Facility

APPENDICES

1 - Data Usage Agreement

DATA SHARING AND USAGE AGREEMENT

Overview

As part of the master data management strategy for the Heartland Civic Collaborative's (HCC) Life Sciences Asset Mapping Project (the "Project"), all entities providing funding for the Project and receiving access to deliverables from the Project ("Stakeholders") agree to the following terms governing the use of information compiled during the Project.

Key Terms:

- Survey Participant – an organization or party that provides information or data pertaining to its own business or operations.
- Project Stakeholder – Stakeholders who have a significant level of involvement in the direction and execution of the Project and will receive Deliverables resulting from the Project.
- Broader Stakeholder – Stakeholders who have a vested interest in and/or have provided financial support for the Project but do not have a significant level of involvement in the direction and execution of the Project and will not receive Deliverables resulting from the Project.
- Class 1 Data – information generally available or accessible in the public domain and which Stakeholders agree can be shared with the general public providing information about individual, identified Survey Participants.
- Class 2 Data – information that is generally not available, or readily available, in the public domain and which Stakeholders agree cannot be shared with the general public unless aggregated first or prior written permission is obtained from the Survey Participant(s).
- Deliverable – any and all products RubinBrown LLP produces as a result of its engagement by the Heartland Civic Collaborative.
- Restricted Data – non-publicly available data provided by a Stakeholder, which the providing Stakeholder does not want shared with other Stakeholders or otherwise utilized for the Project. Any information identified by Stakeholders as Restricted Data will not be included in Project Deliverable(s).
- Project – scope of work for which RubinBrown LLP was contracted by the Kansas City Area Life Sciences Institute serving as the fiscal agent for the Heartland Civic Collaborative.
- Jurisdiction – the geographic territory for which a Project Stakeholder is responsible for collecting information on life sciences companies (e.g., MOBIO's jurisdiction is the state of Missouri).

Project Stakeholders

Project Stakeholders will receive compiled data in one or more Deliverables from RubinBrown LLP and are responsible for data storage, integrity, and access within their individual jurisdictions. Data sharing and access are under the discretionary control of each organization within the confines of this Data Sharing & Usage Agreement. Project Stakeholders include:

- BioSTL
- The Civic Council of Greater Kansas City (Civic Council)
- Iowa Biotech Association (IowaBio)
- Kansas Bioscience Organization (BioKansas)
- Kansas City Area Life Sciences Institute
- Missouri Biotechnology Association (MOBIO)
- Nebraska Life Science Association (BioNebraska)

Broader Stakeholders

Broader Stakeholders have a vested interest in supporting and assisting in the development of a life sciences asset map for the states of Iowa, Kansas, Missouri, and Nebraska. These organizations will have access to data compiled by and transferred from RubinBrown LLP via the Project Stakeholders located within their individual state pursuant to the terms this Data Sharing Agreement. The data shared with Broader Stakeholders will be limited to Class 1 Data or aggregated Class 2 Data. Broader Stakeholders include:

- Greater Des Moines Partnership
- Missouri Technology Corporation
- Omaha Chamber of Commerce
- PhRMA

Stakeholder Usage

1. All data provided to and collected by RubinBrown LLP is provided with the knowledge and expectation that it will be shared with all Stakeholders who execute this Data Sharing & Usage Agreement.
2. If an individual Stakeholder has shared data but does not have the rights to such data or does not want that data shared with the broader group of Stakeholders, then such Restricted Data should be made known to RubinBrown LLP, in writing, so it will not be included in the Project Deliverables or shared with other Stakeholders. If a Stakeholder provides data in which a subset is Restricted Data, the Restricted Data fields should be redacted before providing it to RubinBrown LLP. If no data is redacted, RubinBrown LLP will assume that provided data can be incorporated and shared with all Stakeholders.

3. Stakeholders receiving data included in the Project Deliverables, wholly or in part, agree to utilize data and information in a manner consistent with this Data Sharing & Usage Agreement.
4. Stakeholders may order, analyze, and/or manipulate raw data contained in the Project Deliverable for their organization's internal use to gain better understanding of the assets in their jurisdiction. Internal use is defined as the organization's Board of Directors, leadership team, and staff.
 - a. Members of a Stakeholder's Board of Directors are restricted to using any and all data solely for the knowledge and benefit of the Stakeholder institution. Individual Board members are prohibited from using any Class 2 Data for their own benefit or the benefit of the company/organization they represent.
 - b. The Board of Directors is prohibited from making data sharing or use decisions that directly conflict with this Data Sharing & Usage Agreement.
5. Stakeholders may share data with other organizations only in such a way that specific Class 2 Data cannot be attributed to an individual company or organization.

Public Usage

1. Stakeholders agree that data contained within Project Deliverables will fall into one of two classifications:
 - a. Class 1 Data: Data that may be reported by Stakeholders on an individual entity level in formats available to the general public. Data fields may include:
 - I. Entity Name
 - II. Entity Web Address
 - III. Entity Type (e.g. For Profit, Not for Profit, etc.)
 - IV. Focus – Service
 - V. Focus – Product
 - VI. Focus – Asset
 - VII. Specific Focus / Niche
 - VIII. Industry (e.g. Human, Plant, NAICS)
 - IX. Location – Zip Code
 - X. Location – Street Address
 - XI. Location – City
 - XII. Location – County
 - XIII. Location - State
 - XIV. Publicly listed phone #
 - XV. Publicly listed email address
 - XVI. Industry – Segment
 - XVII. Industry – Sub-Segment
 - XVIII. Industry – NAICS code
 - XIX. Age of entity

- b. Class 2 Data: Data that may NOT be reported by Stakeholders on an individual entity level in formats available to the general public. Data must be aggregated OR Stakeholders must obtain prior written permission from entity itself before Class 2 Data disclosure. Data fields may include:
 - I. Contact Info – Name
 - II. Contact Info – Email
 - III. Contact Info - Phone
 - IV. Current Number of Employees
 - V. Employment Growth (last twelve months)
 - VI. Education Level of Workforce
 - VII. Desired Education Level For Vacancies
 - VIII. Sales – 2014
 - IX. R&D Spend – 2014
2. Stakeholders agree that they will take necessary precautions and implement reasonable policies and procedures to ensure compliance with this Data Sharing & Usage Agreement.

Ownership

Data compiled by and transferred from RubinBrown LLP will be the sole property of the Project Stakeholders listed above. Each Project Stakeholder may use and share their data as defined in the Data Sharing & Usage Agreement within their jurisdiction.

Access

1. Each Project Stakeholder holds exclusive control over data access provided to members of and/or vendors for their organization provided:
 - a. Project Stakeholder develops policies and procedures that maintain data integrity and security.
 - b. Project Stakeholder limits access to Restricted Data in a manner consistent with the Data Sharing & Usage Agreement.
2. Project Stakeholders may provide internet access to their dataset provided it is password protected and access to Class 2 Data is in a manner consistent with the Data Sharing & Usage Agreement.

Approval

In the event that there are questions regarding the appropriate sharing and use of data that cannot be resolved by interpretation of this Data Sharing & Usage Agreement, a data sharing and use committee comprised of a representative from each of the Project Stakeholders will be convened to consider the issue. A simple majority vote regarding data sharing and use will constitute approval or disapproval. In the event a tie vote occurs which cannot be resolved through additional discussion, such a tie vote will serve as disapproval for proposed data sharing and use of data.

2 - Final Data Fields

Comprehensive Coverage: Attempt through research and direct follow-up, to capture as complete coverage of these categories and data fields as possible given scope and resources

1. ID
 - a. Entity Name (Class 1)
 - b. Entity Web Address (Class 1)
2. Entity Type
 - a. Company/Entity Type (Class 1)
 - I. For profit – Private company
 - II. For profit – Public company
 - III. Not for profit – Academic
 - IV. Not for profit – Incubator
 - V. Not for profit - Industry / Professional organization
 - VI. Not for profit – Other
 - VII. Not for profit – Research institute
 - VIII. Government / Public – Academic
 - IX. Government / Public – Development
 - X. Government / Public – Other
3. Focus
 - a. Service Type (from BIO organization) (Class 1)
 - I. Biomanufacturing
 - II. Clinical Trial
 - III. CMO
 - IV. Communications/Media
 - V. Consulting
 - VI. CRO
 - VII. Data & Statistical Analysis
 - VIII. Diagnostic/Device
 - IX. Drug development
 - X. Facility management
 - XI. Financial / Investment
 - XII. Governmental
 - XIII. Information Technology
 - XIV. Insurance
 - XV. Legal
 - XVI. Licensing / Tech Transfer
 - XVII. Other
 - XVIII. Tech Transfer
 - b. Product Type (from BIO organization)
 - I. Anesthetic/Respiratory
 - II. API / Intermediates
 - III. Biofuels
 - IV. Biomaterials
 - V. Chemicals
 - VI. Delivery devices
 - VII. Dental devices
 - VIII. Diagnostic
 - IX. Hospital hardware
 - X. Imaging equipment

- XI. Implantable device
- XII. Information technology
- XIII. Laboratory supplies
- XIV. Medical device
- XV. Ophthalmic and optical devices
- XVI. Other
- XVII. Regenerative medicine
- XVIII. Single use devices
- XIX. Wound care
- c. Asset Type (from BIO organization)
 - I. Antibody
 - II. Antisense
 - III. Bacterial product
 - IV. Carbohydrate or glycoprotein
 - V. Cellular
 - VI. Gene Therapy
 - VII. Nucleic acid
 - VIII. Nutraceuticals
 - IX. Other
 - X. Protein / Protein derivative
 - XI. Small molecule
 - XII. Steroid
 - XIII. Vaccine
 - XIV. Virus
- d. Specific Focus / Niche (Class 1)
- 4. Location
 - a. Zip Code (Class 1)
 - b. Street (Class 1)
 - c. City (Class 1)
 - d. County (Class 1)
 - e. State (Class 1)
- 5. Industry
 - a. Segment (Class 1)
 - I. Plant
 - II. Animal
 - III. Human
 - IV. Agri-business
 - V. Energy
 - b. Sub-Segment (Follows BIO/Battelle classification) (Class 1)
 - I. Agricultural feedstock & chemicals
 - II. Drugs & Pharmaceuticals
 - III. Medical devices & equipment
 - IV. Research, testing, & medical laboratories
 - V. Bio-science related distribution
 - VI. Software / health information applications
 - VII. Biologicals / vaccines
 - VIII. Agricultural & food products
 - IX. Plant genetics
 - X. Renewable energy
 - c. NAICS (Class 1)

Survey Coverage: The following categories and data fields will be populated through compilation of provided data and the survey process – no direct follow-up or additional research will be performed to capture these data fields

6. Contact (Executive level first, business development level second, science/technology third)
 - a. Key Contact – Name (Class 2)
 - b. Key Contact – Email (Class 2)
 - c. Key Contact – Phone (Class 2)
7. Employment
 - a. Current # of Employees
 - b. Employment Growth (last 12 months)
 - c. Education level of workforce
 - d. Desired education level for vacancies
8. Revenue
 - a. Sales – 2014
9. R&D
 - a. R&D spend – 2014
10. General
 - a. Age of entity (Class 1)

3 - Survey Instructions

Participate in strengthening the region's life sciences ecosystem and driving increased collaboration. By taking 10 minutes to participate, you will ensure that your organization is recognized as part of the region's ecosystem and may improve your growth and funding opportunities.

To participate in the survey, please use or paste the following into your web browser:

<https://www.surveymonkey.com/s/Life-Sciences-Survey>

The Heartland Civic Collaborative (HCC) is undertaking an industry asset mapping project in collaboration with Kansas City Area Life Sciences Institute, BioKansas, Bio Nebraska, BioSTL, IowaBio, MOBIO, and the Civic Council of Greater Kansas City ("Project Stakeholders"). The purpose is to gather information about life sciences activity in the four state region comprising Iowa, Kansas, Missouri, and Nebraska. The information collected will support the Project Stakeholders' missions of growing life sciences activity in the region, serving their constituents, and providing the public with consolidated access to life science assets within the region.

All Project Stakeholders have agreed to a data usage policy for this project and agree to taking necessary precautions and implementing policies and procedures to ensure compliance with the policy and protect the data.

RubinBrown LLP is facilitating this project on behalf of HCC and Project Stakeholders. For more information about the project, project data usage, HCC, and RubinBrown LLP please visit:

<http://rubinbrown.com/hcc>

Any questions regarding this survey can be directed to:

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RubinBrown LLP
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josh.leesmann@rubinbrown.com

Thank you in advance for your participation.