

Rhode Island Commerce Corporation
Rebuild Rhode Island and Qualified Jobs Incentive Tax Credits –
Economic Impact Analysis
Rubius Therapeutics Application

Introduction

The Rhode Island Commerce Corporation (the “Corporation”) may issue Rebuild Rhode Island and Qualified Jobs Incentive tax credits to Rubius Therapeutics, Inc. (“the Company”), a Cambridge, Massachusetts-based biopharmaceutical manufacturer. The credits would be issued in connection with the Company’s decision to acquire, renovate, expand and activate an existing facility in Smithfield, Rhode Island. The newly-renovated facility would be used to manufacture a new class of medicines called Red Cell Therapeutics.

The Smithfield facility would be acquired and renovated at an estimated total cost of approximately \$155.0 million. By its second year of operation, the facility is expected to employ 154 full-time workers.

The Company is expected to request:

- \$2,750,000 in Rebuild Rhode Island tax credits;
- An exemption from sales and use taxes due on construction materials and furnishings, with an estimated value of \$2,700,000;
- \$3,715,000 in Qualified Jobs Incentive tax credits; and
- A Tax Stabilization Incentive valued at \$180,000.

This analysis was prepared by Appleseed, a consulting firm with more than twenty years of experience in economic impact analysis.

Jobs Analysis

Construction

As shown in Table 1, the Company estimates the total cost of renovating and equipping its newly-acquired facility at approximately \$155.0 million, with the full build-out and fit-out occurring in stages over a five-year period.

Table 1: Rubius Therapeutics estimated total project cost (\$ millions)

Component	Estimated cost
Property acquisition	\$16.0
Construction	82.7
Machinery and equipment	2.5
Furniture and fixtures	53.2
Computers/IT	0.6
Total	\$155.0

After excluding certain costs that do not have a direct impact on Rhode Island's economy (such as site acquisition, and machinery and equipment that we assume will be procured out-of-state), Appleseed estimates that the Company will spend approximately \$82.7 million in Rhode Island on construction of the plant. Appleseed estimates that direct expenditures of approximately \$82.7 million will directly and indirectly generate:

- 587 person-years¹ of work in Rhode Island, with \$39.7 million in earnings (in 2020 dollars);
- Approximately \$98.5 million in statewide economic output²; and
- A one-time increase of \$56.9 million in Rhode Island's GDP.

These impacts are summarized below in Table 2. The project's *direct impact* is the impact of the company's direct spending on construction (both hard and soft costs). Its *indirect impact* is the effect of spending by contractors for goods and services (insurance, construction materials, etc.) purchased from other Rhode Island businesses.

Table 2: Direct, indirect and induced impact of construction and related spending (employment in person-years; income, value-added and output in millions of 2019 dollars)

	Employment	Earnings	Value added	Output
Direct Effect	498	\$33.7	\$47.4	\$82.7
Indirect Effect	89	6.0	9.5	15.8
Total Effect	587	\$39.7	56.9	\$98.5

In addition to the impacts on employment, earnings, output and state GDP cited in Table 2, direct spending of \$82.7 million would generate a projected one-time increase of approximately \$2.326 million in taxes paid to the State during construction, including:

¹ A person-year is equivalent to the time worked by one person who is employed full-time for a year. It could for example represent the work of two people who are each employed full-time for six months; or the work of one person who is employed half-time for two years.

² Output is a measure of the total sales by Rhode Island companies (including the "sale" of labor by Rhode Island households) generated by the project.

- \$1.490 million in state personal income taxes paid by Rhode Island workers employed on the project, or whose jobs are indirectly attributable to the project;
- \$648,000 in state sales taxes paid on those workers' taxable household spending; and
- \$188,000 in state business taxes.

Most of the activity reflected in Table 2 is assumed occur over a three-year period – from 2018 through 2020. The anticipated wage rates for construction jobs are shown below in Table 3. Anticipated wage rates are the median hourly wage for these occupations in Rhode Island.

Table 3: Anticipated wages during construction

Occupation	RI median hourly wage ³
Architect	\$42.50
Construction manager	\$50.86
Carpenter	\$22.42
Electrician	\$25.26
Plumber	\$24.84
Painter	\$18.69
Laborer	\$18.68

Fringe benefits associated with these jobs are expected to be in accordance with industry norms, with the cost of such benefits generally ranging between 22 and 28 percent of wages. Workers who fill these jobs are expected to be drawn primarily from the Providence-Warwick RI-MA New England City and Town Area (NECTA).

Annual operations

As noted above, the Company would employ 92 full-time workers at its new Rhode Island facility in its first year, rising to 154 in its second year (assumed here to be 2022). Table 3 summarizes the categories in which these jobs will be created, and the median salary for each category. The median across all categories would be \$54,941.

Table 3: Projected employment, second year of operation

Job category	New positions (Year 3)	Median salary
Management	8	\$191,718
Lab technicians & manufacturing	125	54,941
Engineers	21	67,161
Total	154	\$54,941

³ Rhode Island Department of Labor and Training, Occupational Employment Statistics, 2016

Based on data provided by the Company, and using the IMPLAN input-output modeling system, Appleseed estimates that in year 2, ongoing operations associated with the full-time jobs the Company would be committed to creating and maintaining will directly and indirectly support:

- 214 jobs in Rhode Island;
- \$15.7 million in annual earnings (in 2021 dollars);
- \$54.8 million in statewide economic output; and
- An increase of \$28.1 million in Rhode Island's annual GDP.

These impacts are summarized below in Table 4.

Table 4: Direct, indirect and total annual impact of ongoing operations (employment in FTE; income, value-added and output in millions of 2021 dollars)

	Jobs	Earnings	Value added	Output
Direct Effect	154	\$10.2	\$19.7	\$41.2
Indirect Effect	60	5.5	8.4	13.6
Total Effect	214	\$15.7	\$28.1	\$54.8

In addition to the impacts on employment, earnings, output and state GDP cited above, the new facility's ongoing operations would generate a projected increase of approximately \$919,000 in annual state tax revenues, including:

- \$588,000 in state personal income taxes paid by workers newly employed at the Company's new Rhode Island facility, or by Rhode Island workers whose jobs are indirectly attributable to the new facility;
- \$257,000 in state sales taxes paid on those workers' taxable household spending; and
- \$74,000 in state business taxes.

Benefits

The Company's standard benefit program includes medical, dental and life insurance, short- and long-term disability insurance, a 401k program with an employer match, a bonus plan and 20 days of personal time off.

Hiring

The Company posts job openings on, and accepts applications through, its website. The Company also recruits through services such as Indeed.com; and may also use search firms for more specialized scientific and management positions.

Impact

The state fiscal impact of the requested tax credits, sales tax exemption and tax stabilization incentive is estimated to be approximately \$9.345 million in foregone state tax revenue. Direct and indirect economic and fiscal benefits of the proposed project include the estimated increase in annual state GDP of \$28.1 million in the second year of operation, the estimated associated job creation, and a gross increase of \$12.984 million in personal income, sales and business tax revenues during the initial construction period and the twelve-year commitment period. Over fifteen years, the cumulative gross increase in these three taxes would total \$15.741 million. These benefits are detailed in the foregoing analysis.

In addition to the economic and tax revenue impacts cited above, the Company's new facility would benefit Rhode Island in other ways, including:

- Highlighting Rhode Island's attractiveness as a location for life sciences companies and for advanced manufacturing facilities
- Providing new, high-quality opportunities in manufacturing for Rhode Island residents
- Developing the state's life sciences and biomanufacturing workforce
- Increasing local real property and tangible personal property tax revenues

Beyond the fiscal impact noted above, there is no anticipated financial exposure to the state. Various features of the Rebuild Rhode Island program mitigate risks to the state. In particular, the completion risk (i.e. the risk that the project is not completed) is mitigated by the fact that Rebuild Rhode Island tax credits will be issued only upon completion of construction work. The risk of project cost overruns is mitigated by the fact that the credits would be capped at the amount set forth above. In addition, if project costs come in lower than anticipated, the value of the credits would be reduced accordingly.

Various features of the Qualified Jobs Incentive program similarly mitigate risk to the state. The value of Qualified Jobs Incentive tax credits would be determined on the basis of the number of people actually employed and the wages actually paid by the Company; and the Company would be obligated to maintain the projected level of employment in Rhode Island through the twelve-year commitment period.