UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

FORM 8-K

CURRENT REPORT
Pursuant to Section 13 or 15(d) of the
Securities Exchange Act of 1934

Date of Report (Date of earliest event reported): November 4, 2020

T2 BIOSYSTEMS, INC.
(Exact name of registrant as specified in its charter)

Delaware	**001-36571**	**20-4827488**
(State or other jurisdiction of incorporation)	**(Commission File Number)**	**(IRS Employer Identification Number)**

101 Hartwell Avenue, Lexington, Massachusetts 02421
(Address of principal executive offices, including Zip Code)

(781) 761-4646
(Registrant's telephone number, including area code)

N/A
(Former Name or Former Address, if Changed Since Last Report)

Check the appropriate box below if the Form 8-K filing is intended to simultaneously satisfy the filing obligation of the registrant under any of the following provisions:

☐ Written communications pursuant to Rule 425 under the Securities Act (17 CFR 230.425)

☐ Soliciting material pursuant to Rule 14a-12 under the Exchange Act (17 CFR 240.14a-12)

☐ Pre-commencement communications pursuant to Rule 14d-2(b) under the Exchange Act (17 CFR 240.14d-2(b))

☐ Pre-commencement communications pursuant to Rule 13e-4(c) under the Exchange Act (17 CFR 240.13e-4(c))

Securities registered pursuant to Section 12(b) of the Act:

Title of each class	Trading Symbol(s)	Name of each exchange on which registered
Common stock, par value $0.001 per share	**TTOO**	**The Nasdaq Stock Market LLC (Nasdaq Global Market)**

Indicate by check mark whether the registrant is an emerging growth company as defined in Rule 405 of the Securities Act of 1933 (§230.405 of this chapter) or Rule 12b-2 of the Securities Exchange Act of 1934 (§240.12b-2 of this chapter).

Emerging growth company ☐

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act. ☐

Item 2.02 Results of Operations and Financial Condition

On November 4, 2020, T2 Biosystems, Inc. (the "Company") issued a press release announcing its financial results for its fiscal quarter ended September 30, 2020 and held a conference call to discuss those results. A copy of the Company's press release and a copy of the transcript of the conference call are furnished with this report as Exhibits 99.1 and 99.2, respectively.

In accordance with General Instruction B.2 of Form 8-K, the information in this Item 2.02 and Exhibits 99.1 and 99.2 of this Current Report on Form 8-K are being furnished and shall not be deemed to be "filed" for purposes of Section 18 of the Securities Exchange Act of 1934, as amended, or otherwise subject to the liabilities of that Section. Furthermore, such information, including Exhibits 99.1 and 99.2 attached hereto, shall not be deemed to be incorporated by reference in any filing under the Securities Act of 1933, as amended, except as expressly stated by specific reference in such a filing.

Item 9.01 Financial Statements and Exhibits

(d) Exhibits

Exhibit No.	Description
99.1	Press Release issued November 4, 2020
99.2	Transcript of conference call held on November 4, 2020

SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, as amended, the registrant has duly caused this report to be signed on its behalf by the undersigned hereunto duly authorized.

Date: November 6, 2020

T2 BIOSYSTEMS, INC.

By: /s/ John Sprague
John Sprague
Chief Financial Officer

Exhibit 99.1

T2 Biosystems Announces Third Quarter 2020 Financial Results

Total revenues increase by 213% on record high quarterly product sales

LEXINGTON, Mass., November 4, 2020 (GLOBE NEWSWIRE)—T2 Biosystems, Inc. (NASDAQ:TTOO), a leader in the rapid detection of sepsis-causing pathogens, today announced financial results for the third quarter ended September 30, 2020.

Recent Highlights

- Achieved record quarterly revenue of $5.2 million, including product revenue of $3.8 million, representing growth of 213% and 219% respectively, compared to the prior year period
- Sold record 32 T2Dx® Instruments in the third quarter, including 28 instruments in the U.S., an increase of 167% compared to the prior year period
- Increased T2Bacteria® and T2Candida® Panel revenue by 70% and 38% respectively, compared to the prior year, demonstrating significant growth in the sepsis portfolio
- Received Emergency Use Authorization (EUA) for the T2SARS-CoV-2® Panel molecular diagnostic test run on the FDA-cleared T2Dx Instrument to detect the virus responsible for COVID-19
- Completed all milestones in the base phase of the product development contract awarded by BARDA, leading to the subsequent exercise of the first contract option valued at $10.5 million
- Received New Technology Add-on Payment (NTAP) extension for the T2Bacteria Panel from the U.S. Centers for Medicare & Medicaid Services (CMS) for fiscal year 2021

“The third quarter was transformational for T2 Biosystems as we continue our growth as a commercially driven, customer-focused company. We achieved record sales during the quarter, grew our U.S. installed base of T2Dx Instruments by nearly 70 percent, saw strong demand at U.S. hospitals for our COVID-19 diagnostic test, and have commitments from new customers to adopt our products that have positioned us for long-term success,” stated John Sperzel, President and CEO of T2 Biosystems. “We remain committed to our three corporate priorities – accelerating sales, improving operations, and advancing our pipeline – and look to build on our momentum during the fourth quarter of 2020.”

Third Quarter 2020 Financial Results

Total revenue for the third quarter of 2020 was $5.2 million, an increase of 213% compared to the prior year period. Product revenue for the third quarter of 2020 was $3.8 million, an increase of 219% compared to the prior year period, driven by increased test panel and instrument sales. Research and contribution revenue for the third quarter of 2020 was $1.5 million, an increase of 198% compared to the prior year period, driven by increased activity under the BARDA contract.

Costs and operating expenses for the third quarter of 2020 were $15.9 million, an increase of $1.9 million compared to the prior year period, driven by increased cost of product revenue from increased sales and offset by lower research and development and selling, general and administrative expenses.

Net loss for the third quarter of 2020 was $11.3 million or a loss of $0.08 per share, compared to a net loss of $14.2 million or a loss of $0.31 per share in the prior year period.

Total cash, cash equivalents, current and long-term marketable securities, and restricted cash were $61.8 million as of September 30, 2020.

2020 Financial Outlook

The Company has increased its expectation of full year 2020 total revenue to be between $19.0 million to $20.0 million, including product revenue between $13.0 million to $14.0 million and research and contribution revenue of approximately $6.0 million. In the U.S., a minimum of 60 T2Dx Instrument are expected to be sold in the second half of 2020.

Fourth Quarter 2020 Financial Outlook

The Company expects fourth quarter 2020 total revenue to be between $8.7 million to $9.7 million, including product revenue between $7.2 million to $8.2 million and research and contribution revenue of approximately $1.5 million. In the U.S., a minimum 32 T2Dx Instruments are expected to be sold in the fourth quarter of 2020.

Webcast and Conference Call Information

T2's management team will host a conference call today, November 4, 2020, beginning at 4:30pm ET. Investors interested in listening to the call may do so by dialing 877-407-9208 for domestic callers or 1-201-493-6784 for International callers. A live and recorded webcast of the call will be available on the "Investors" section of the Company's website at www.t2biosystems.com.

About T2 Biosystems

T2 Biosystems, a leader in the rapid detection of sepsis-causing pathogens, is dedicated to improving patient care and reducing the cost of care by helping clinicians effectively treat patients faster than ever before. T2 Biosystems' products include the T2Dx® Instrument, T2Candida® Panel, the T2Bacteria® Panel, the T2Resistance™ Panel, and the T2SARS-CoV-2™ Panel and are powered by the proprietary T2 Magnetic Resonance (T2MR®) technology. T2 Biosystems has an active pipeline of future products, including the T2Cauris™ Panel, and T2Lyme™ Panel, as well as additional products for the detection of bacterial and fungal pathogens and associated antimicrobial resistance markers, and biothreat pathogens.

Forward-Looking Statements

This press release contains forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995. All statements contained in this press release that do not relate to matters of historical fact should be considered forward-looking statements, including, without limitation, statements regarding our revenue results and cash balance, financial outlook, anticipated strategic priorities, product demand, commitments or opportunities, and growth expectations or targets, , as well as statements that include the words "expect," "intend," "plan", "believe", "project", "forecast", "estimate," "may," "should," "anticipate," and similar statements of a future or forward looking nature. Furthermore, statements contained in this document relating to the recent global outbreak of the novel coronavirus disease (COVID-19), the impact of which remains inherently uncertain on our financial results, are forward-looking statements. These forward-looking statements are based on management's current expectations. These statements are neither promises nor guarantees, but involve known and unknown risks, uncertainties and other important factors that may cause actual results, performance or achievements to be materially different from any future results, performance or achievements expressed or implied by the forward-looking statements, including, but not limited to, (i) any inability to (a) realize anticipated benefits from commitments, contracts or products; (b) successfully execute strategic priorities; (c) bring products to market; (d) expand product usage or adoption; (e) obtain customer testimonials; (f) accurately predict growth assumptions; (g) realize

anticipated revenues; (h) incur expected levels of operating expenses; or (i) increase the number of high-risk patients at customer facilities; (ii) failure of early data to predict eventual outcomes; (iii) failure to make or obtain anticipated FDA filings or clearances within expected time frames or at all; or (iv) the factors discussed under Item 1A. “Risk Factors” in the company’s Annual Report on Form 10-K for the year ended December 31, 2019, filed with the U.S. Securities and Exchange Commission, or SEC, on March 16, 2020, and other filings the company makes with the SEC from time to time. These and other important factors could cause actual results to differ materially from those indicated by the forward-looking statements made in this press release. Any such forward-looking statements represent management’s estimates as of the date of this press release. While the company may elect to update such forward-looking statements at some point in the future, unless required by law, it disclaims any obligation to do so, even if subsequent events cause its views to change. Thus, no one should assume that the Company’s silence over time means that actual events are bearing out as expressed or implied in such forward-looking statements. These forward-looking statements should not be relied upon as representing the company’s views as of any date subsequent to the date of this press release.

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CONDENSED CONSOLIDATED BALANCE SHEETS
(In thousands, except share and per share data)
(Unaudited)

	September 30, 2020	December 31, 2019
Assets		
Current assets:		
Cash and cash equivalents	$ 19,059	$ 11,033
Marketable securities	21,990	—
Accounts receivable	3,860	2,825
Inventories	3,569	3,599
Prepaid expenses and other current assets	2,969	1,438
Total current assets	51,447	18,895
Property and equipment, net	3,585	5,845
Operating lease right-of-use assets	1,729	3,360
Restricted cash	551	180
Marketable securities	20,186	—
Other assets	133	206
Total assets	$ 77,631	$ 28,486
Liabilities and stockholders' equity (deficit)		
Current liabilities:		
Notes payable	$ —	$ 42,902
Accounts payable	2,407	3,753
Accrued expenses and other current liabilities	7,654	11,207
Derivative liability	—	2,425
Deferred revenue	290	285
Total current liabilities	10,351	60,572
Notes payable, net of current portion	44,612	—
Operating lease liabilities, net of current portion	479	1,873
Deferred revenue, net of current portion	300	46
Derivative liability	1,235	—
Other liabilities	3,080	—
Commitments and contingencies		
Stockholders' equity (deficit):		
Preferred stock, $0.001 par value; 10,000,000 shares authorized; no shares issued and outstanding at September 30, 2020 and December 31, 2019	—	—
Common stock, $0.001 par value; 200,000,000 shares authorized; 147,954,385 and 50,651,535 shares issued and outstanding at September 30, 2020 and December 31, 2019, respectively	147	51
Additional paid-in capital	430,529	342,121
Accumulated other comprehensive loss	(36)	—
Accumulated deficit	(413,066)	(376,177)
Total stockholders' equity (deficit)	17,574	(34,005)
Total liabilities and stockholders' equity (deficit)	$ 77,631	$ 28,486

T2 BIOSYSTEMS, INC.

CONDENSED CONSOLIDATED STATEMENTS OF OPERATIONS AND COMPREHENSIVE LOSS
(In thousands, except share and per share data)
(Unaudited)

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2020	2019	2020	2019
Revenue:				
Product revenue	$ 3,757	$ 1,177	$ 5,843	$ 3,765
Research revenue	—	56	11	269
Contribution revenue	1,488	444	4,488	1,232
Total revenue	5,245	1,677	10,342	5,266
Costs and expenses:				
Cost of product revenue	6,833	3,944	13,804	13,153
Research and development	3,965	4,098	12,883	12,047
Selling, general and administrative	5,083	5,981	16,691	19,756
Total costs and expenses	15,881	14,023	43,378	44,956
Loss from operations	(10,636)	(12,346)	(33,036)	(39,690)
Interest expense, net	(646)	(1,876)	(3,906)	(5,658)
Other income, net	27	51	53	383
Net loss	$ (11,255)	$ (14,171)	$ (36,889)	$ (44,965)
Net loss per share — basic and diluted	$ (0.08)	$ (0.31)	$ (0.33)	$ (1.01)
Weighted-average number of common shares used in computing net loss per share — basic and diluted	147,793,891	45,413,215	112,371,006	44,711,463
Other comprehensive loss:				
Net loss	$ (11,255)	$ (14,171)	$ (36,889)	$ (44,965)
Net unrealized gain (loss) on marketable securities	(36)	—	(36)	—
Comprehensive loss	$ (11,291)	$ (14,171)	$ (36,925)	$ (44,965)

Philip Taylor

Thank you operator. I would like to remind everyone that comments made by management today and answers to questions will include forward-looking statements. Those include statements related to T2 Biosystems' future financial and operating results and plans for developing and marketing new products.

Forward-looking statements are based on estimates and assumptions as of today and are subject to risks and uncertainties that may cause actual results to differ materially from those expressed or implied by these statements, including the risks and uncertainties described in T2 Biosystems' annual report on Form 10-K filed with the SEC March 16, 2020, and other filings the company makes with the SEC from time to time. The company undertakes no obligation to publicly update or revise any forward-looking statements, except as required by law. With that, I would like to turn the call over to President and CEO, John Sperzel. John?

John Sperzel

Thank you for joining our third quarter 2020 earnings conference call. Before we begin, I want to acknowledge the ongoing pandemic and express my gratitude to our healthcare workers. I also want to thank our team at T2 Biosystems for developing novel diagnostic products that enable those frontline workers to optimize patient care and improve patient outcomes.

On today's call, I will start with a review of our performance during the third quarter, including significant revenue growth, and then discuss the progress made toward each of our three corporate priorities. John Sprague will discuss the detailed third quarter financial results, I will make some closing remarks, and then we will open the call for questions and answers.

The T2 Biosystems team generated total revenue of $5.2 million in the third quarter of 2020, an increase of 213% compared to the prior year period, and realized the highest quarterly revenue in Company history. Product revenue during the third quarter was $3.8 million, an increase of 219% compared to the prior year period. While our revenue growth was bolstered by the launch of our new COVID-19 diagnostic test, the T2SARS-CoV-2 Panel, I am pleased to report that sales of our novel sepsis panels, T2Bacteria and T2Candida, increased by 70% and 38% respectively, compared to the prior year period, further demonstrating the significant correlation between COVID-19 and sepsis.

The pandemic has served as a catalyst for T2 Biosystems to increase our installed base of instruments in U.S. hospitals. Diagnostic testing has taken center stage during the past year, and it is clear that rapid and accurate diagnostic tests are needed to optimize patient care. During the third quarter, we sold a record 32 T2Dx Instruments, an increase of 167% compared to the prior year period, including 28 instruments sold in the United States. We believe this larger installed base of T2Dx Instruments, initially running T2SARS-CoV-2 Panels, provides an opportunity to accelerate the adoption of our sepsis panels, T2Bacteria and T2Candida.

Regarding our outlook for the remainder of the year, we are increasing the low end of our full year 2020 revenue guidance. We now expect full year 2020 total revenues of $19 million to $20 million, including product revenues of $13 million to $14 million, and research and contribution revenues of $6 million. We expect to sell at least 60 T2Dx Instruments in the United States during 2020.

The current pandemic has created the potential to accelerate the adoption of our technology while staying true to our mission: *to fundamentally change the way medicine is practiced through transformative diagnostics that improve the lives of patients around the world*. To be very clear, our mission remains focused on sepsis – which, even before the pandemic, caused the death of nearly 270,000 people in the United States each year and 11 million people globally. A recent study conducted by researchers from the U.S. Department of Health and Human Services estimates that the cost of care for sepsis patients in hospitals and skilled nursing facilities in 2019 was more than $62 billion, a marked increase from previous estimates.

As we have mentioned before, the identification and treatment of sepsis is a race against time, as each hour of delayed targeted therapy can increase mortality rates by up to 8%. T2 Biosystems is the only company with FDA-cleared products able to identify sepsis-causing pathogens directly from whole blood, in three to five hours, without the need to wait days for a positive blood culture. Our novel sepsis products and potentially life-saving technology – including the T2Dx Instrument, as well as the T2Bacteria, T2Candida, and T2Resistance Panels – aid clinicians in identifying sepsis-causing pathogens, potentially achieving faster targeted therapy, reducing the use of unnecessary broad-spectrum antibiotics, and helping to prevent and combat growth in antimicrobial resistance.

To build upon our traction in the third quarter, and position the business for long-term success, we remain focused on the three corporate priorities we set at the beginning of the year: accelerating our sales, improving our operations, and advancing our pipeline. I'm pleased to provide details on our progress within each area through the first nine months of 2020.

Let's start by addressing our first priority – accelerating our sales, by prioritizing adoption and increased test utilization.

At the beginning of 2020, we shifted our commercial strategy to focus our resources on the U.S. hospital market. At the same time, we set an ambitious target to double the annual sepsis test utilization among our U.S. installed base of T2Dx Instruments, from $50,000 to $100,000. Consistent with our objectives, the overwhelming majority of our third quarter product sales came from the U.S. market, and we continue to pursue our target of increasing sepsis test utilization.

The adoption of our T2Dx Instruments by U.S. hospitals during the third quarter was remarkable. We sold 28 T2Dx Instruments during the third quarter, increasing our U.S. installed base to 69 T2Dx Instruments. Fueled by the launch of our T2SARS-CoV-2 Panel, we achieved an astounding 383% increase in U.S. product sales revenue during the third quarter, compared to the prior year period.

On August 31, 2020, we announced the U.S. Food and Drug Administration Emergency Use Authorization of our COVID-19 molecular diagnostic test, the T2SARS-CoV-2 Panel. This new test is having a significantly positive impact on our business, providing a catalyst for increased sales of T2Dx Instruments in the United States, which are being pre-positioned for the potential future adoption of our existing sepsis products.

This increased demand has allowed us to shift our U.S. commercial model from the previous reagent rental model in which we placed T2Dx Instruments at customer sites, to an instrument purchase model in which we sell instruments to customers, along with service contracts, and obtain large upfront purchase orders with contracted minimum volume commitments, and standing orders for T2SARS-CoV-2 Panels. In fact, each of the twenty-eight instruments we shipped to U.S. hospitals during the third quarter was sold in the form of a capital sale. I am thrilled to inform you that we also executed two multi-state, multi-hospital IDN agreements during the third quarter, providing numerous hospitals within those networks direct access to our potentially life-saving technology.

To drive additional T2Dx Instrument sales, we have begun to increase the size of our U.S. sales team during the fourth quarter, and continue to remain mission-focused on targeting U.S. hospitals. To support the significant increase in our T2Dx Instrument installed base, we are also increasing the number of direct service resources to support customer installation and implementation. The process of instrument delivery, set-up, validation, implementation, and migration to routine testing was accelerated to less than one month, from a historical average of nine months.

We are experiencing unprecedented demand from U.S. hospitals for our T2Dx Instrument and T2SARS-CoV-2 Panel following its recent commercial launch. To put the COVID-19 testing opportunity for T2 Biosystems into perspective, annual utilization for a single T2Dx

Instrument running T2SARS-CoV-2 Panels can approximate $600,000 annually. As hospitals look to purchase and implement our technology, a key consideration on our part is that their decision to acquire a T2Dx Instrument is not solely focused on COVID-19, but that they also see value in our platform's ability to address another hospital challenge, the ability to manage and improve patient care as it relates to sepsis. Recent data has demonstrated that one in five hospitalized patients that are positive for SARS-CoV-2 are also positive for additional co-infections, many of which are superinfections and all of which may lead to sepsis, further strengthening the value that we can bring to these U.S. hospital customers.

U.S. hospitals are also experiencing unprecedented demand for COVID-19 molecular diagnostic tests, and because many diagnostic test manufacturers are unable to supply sufficient quantities of tests, many hospitals are acquiring multiple testing platforms in an effort to meet growing testing demand. We believe our ability to guarantee our contracted customers the supply and delivery of both T2Dx Instruments and their specific required quantities of our T2SARS-CoV-2 Panel is a significant competitive advantage.

In thinking about the durability of the COVID-19 testing landscape, we understand that a vaccine is likely to be approved in the near future. We also understand that vaccines may face obstacles and headwinds, like efficacy, limited availability, and consumer resistance. As such, we believe the U.S. hospital demand for COVID-19 molecular diagnostic tests will remain strong through at least 2021.

It is important to remember that our objective during this COVID-19 pandemic is to significantly increase the U.S. installed base of T2Dx Instruments to meet the demand for high-quality COVID-19 molecular diagnostic tests, and to leverage this larger installed base of instruments to expand the use of our potentially life-saving sepsis products well into the future.

On September 4, 2020, we announced that the U.S. Centers for Medicare and Medicaid Services extended the New Technology Add-on Payment, or NTAP, for our T2Bacteria Panel for an additional year, through fiscal year 2021. With this extension, U.S. hospitals treating Medicare inpatients with sepsis can continue to receive an additional reimbursement of up to $97.50 for the T2Bacteria Panel for eligible patients. We believe this reimbursement decision will potentially be a catalyst for the adoption of our T2Bacteria Panel in the upcoming year.

Moving to our second priority – improving our operations, by prioritizing cost of goods and expense reductions.

During the first half of 2020, we made significant progress in reducing our cost structure. We reduced headcount by 20%, consolidated our facilities and reduced our real estate footprint by 22%, and aligned investments with our corporate priorities. We implemented a number of initiatives to reduce the manufacturing cost of our products, primarily focused on our sepsis test panels. We are now beginning to see the benefit of these improvements in our financials — in the form of reduced SG&A expenses and reduced cost of product revenue, compared to prior year periods. In addition, the increased sales volume associated with the new T2SARS-CoV-2 Panel is improving overhead absorption, and allowing us to leverage our supply chain and implement additional improvements.

During the third quarter, we rapidly increased production output of our T2Dx Instruments and our test panels to meet the demand from U.S. hospitals. Our goal is to deliver at least sixty T2Dx Instruments in the U.S. in the second half of 2020, which represents a greater than seven-fold increase over the prior year period. In addition, during the third quarter of 2020, we manufactured approximately 70,000 tests, also a greater than seven-fold increase over the prior year period. We plan to further increase our test manufacturing capacity to approximately 300,000 tests per quarter by early 2021. To support these expansion plans, we are hiring manufacturing, quality control, and quality assurance personnel, and taking all necessary measures to secure our supply chain.

As a reminder, each T2Dx Instrument has the capacity to consume up to sixty T2SARS-CoV-2 Panels per day, depending on workflow. That, coupled with our customer standing order process, enables us to accurately calculate and forecast the test demand based on our instrument installed base, and plan manufacturing schedules accordingly.

Moving to our third priority – advancing our pipeline, by prioritizing programs under the milestone-based product development contract awarded by the U.S. government, or BARDA, in 2019.

The BARDA contract contains a base phase and six options, totaling funding of up to $69 million, to develop a biothreat panel, next generation instrument, and expanded sepsis panel. We recently completed all milestones in the base phase of the contract, on schedule and on budget. The progress by our development team led to BARDA's decision to exercise option one of the contract, valued at $10.5 million, which we announced on September 30, 2020. As a reminder, the contract terms require that T2 Biosystems incur expenses and submit them to BARDA each month for reimbursement.

We view BARDA's decision to exercise option one as a positive development, reinforcing our shared objective to improve the diagnosis and management of bloodstream infections, and we believe the new products will be highly differentiated and highly disruptive. We remain on schedule to develop a biothreat panel, as well as a next generation instrument and expanded sepsis panel.

We believe the next generation instrument and expanded sepsis panel will be a major leap forward for direct-from-blood diagnostic testing. It is designed to potentially cover up to 99% of all bloodborne infections and detect more than 250 species, including pan-Gram positive and pan-Gram negative results, in addition to all bloodborne antibiotic-resistant threats identified by the U.S. Centers for Disease Control and Prevention.

This pandemic has highlighted the need to address society's vulnerability to emerging pathogens, and raised awareness of the impact that growing antimicrobial resistance may have on our ability to fight future pandemics. We believe our current and future products can play an important role in addressing these global threats.

Now I will turn the call over to John Sprague to detail the third quarter financials.

John Sprague

Thank you, John.

Total revenue for the third quarter of 2020 was $5.2 million, an increase of 213% compared to the prior year period. Product revenue for the third quarter of 2020 was $3.8 million, an increase of 219% compared to the prior year period driven by increased test panel and instrument sales. Research and contribution revenue for the third quarter of 2020 was $1.5 million, an increase of 198% compared to the prior year period driven by increased activity under the BARDA contract.

Costs and operating expenses for the third quarter of 2020 were $15.8 million, an increase of $1.9 million compared to the prior year period, driven by increased cost of product revenue from increased sales and offset by lower research and development and selling, general and administrative expenses.

Net loss for the third quarter of 2020 was $11.3 million, ($0.08) per share, compared to a net loss of $14.2 million, ($0.31) per share in the prior year period.

Total cash, cash equivalents, current and long-term marketable securities, and restricted cash were $61.8 million as of September 30, 2020. We expect working capital will increase compared to prior periods as receivables and inventories increase with higher sales.

To reiterate the guidance John provided earlier, we now expect fourth quarter 2020 total revenue to be between $8.7 million to $9.7 million, including product revenue between $7.2 million to $8.2 million and research and contribution revenue of approximately $1.5 million. In the U.S. we expect a minimum of 32 T2Dx Instruments will be sold in the fourth quarter of 2020.

Thank you and back to John Sperzel for closing remarks.

John Sperzel

The third quarter was transformational for T2 Biosystems as we continue our growth as a commercially driven, customer-focused company. We achieved record sales during the quarter, grew our U.S. installed base of T2Dx Instruments by nearly 70 percent, saw strong demand from U.S. hospitals for our COVID-19 molecular diagnostic test, and have commitments from customers to adopt our products that have positioned us for long-term success.

We entered the fourth quarter with strong demand for our products, and we are excited about the future of T2 Biosystems and confident in our ability to lead the molecular diagnostic sepsis testing market. We look forward to providing updates on our progress in the future.

We will now open it up to questions. Operator?