

# Breakthrough Sepsis Pathogen Detection

Corporate Presentation  
January 2019  
(NASDAQ: T2OO)

# Forward-Looking Statements

This presentation contains forward-looking statements. Such statements reflect the current views of senior management of T2 Biosystems, Inc. ("we", "us", "our", "T2", "T2 Biosystems" or the "Company") and include those about T2's goals, strategies, plans, objectives, prospects, milestones, future operations, business and industry, anticipated product benefits, future events and conditions and potential scenarios. Such statements and those that include the words "expect," "intend," "plan," "believe," "project," "forecast," "estimate," "may," "should," "anticipate" and similar statements of a future or forward-looking nature identify forward-looking statements for purposes of the federal securities laws or otherwise. Forward-looking statements address matters that involve risks and uncertainties. Each forward-looking statement is subject to risks and uncertainties that could cause actual results to differ materially from those expressed or implied in such statement, including, for example: (i) our status as an early commercial-stage company and expectation to incur losses in the future; (ii) our ability to obtain marketing authorization from the FDA or regulatory clearance for additional product candidates in the United States or abroad; (iii) the market acceptance of our technology; (iv) our ability to timely and successfully develop and commercialize existing and future product candidates; (v) our lengthy and variable sales cycle and lack of sales history; (vi) our ability to successfully manage growth; (vii) federal, state and foreign regulatory requirements; (viii) our uncertain future capital needs and ability to raise future capital; (ix) dependence on third parties; (x) recruiting, training and retaining key personnel; (xi) competitive factors; (xii) manufacturing and other product risks; (xiii) risks related to intellectual property; and (xiv) other risk factors included in our annual report on form 10-K filed with the Securities and Exchange Commission (SEC) on March 19, 2018 and other documents we file with the SEC from time to time. Accordingly, there are or will be important factors that could cause our actual results to differ materially from those indicated in these statements. The statements made herein speak only as of the date of this presentation. We do not undertake, and specifically disclaim, any obligation to update any forward-looking statements contained in this presentation.

# Why Are We Here Today?

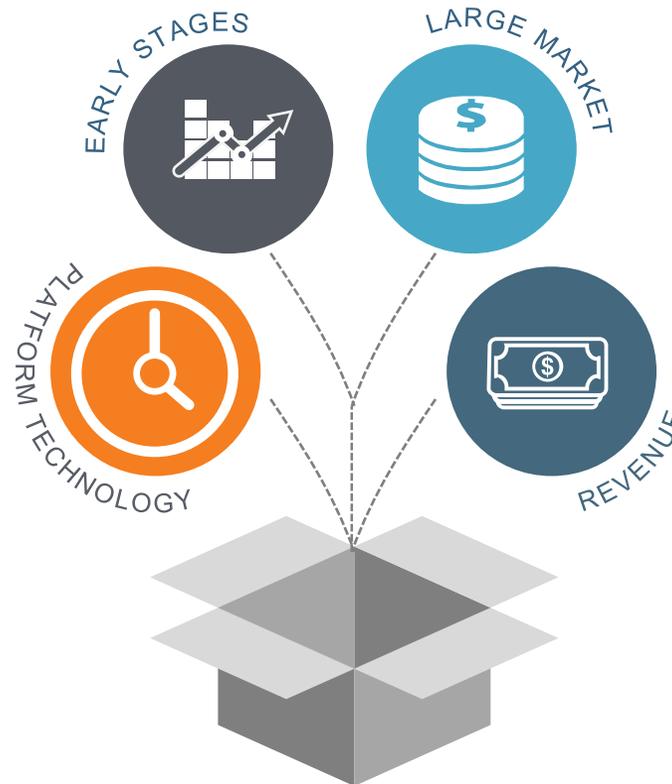
T2 has reached a tipping point for broad adoption of the T2Dx<sup>®</sup> technologies

## Early Stages

- Proven with T2Candida<sup>®</sup>
- Launching with T2Bacteria<sup>®</sup>

## Platform Technology

- Market expansion over time



## Large Market

- Global unmet need

## Revenue

- “Double-double” revenue growth opportunity with attractive recurring model

# Sepsis is a Deadly and Frustrating Global Problem

A recognized, but unsolved global crisis



1 death every  
**5 seconds**  
(more or less)

# Sepsis is a Deadly and Frustrating Global Problem

A critical part of the solution is now available



Potentially  
**>40,000**  
preventable deaths in  
the U.S. with T2



# The Facts About Sepsis

Most expensive hospital-treated condition in the U.S.



Contributes to  
1 in 2-3 hospital  
deaths<sup>1</sup>



Representing  
\$27B in U.S.  
healthcare  
costs<sup>2,3</sup>



**Claims more  
lives than breast  
cancer, prostate  
cancer and  
AIDS, combined<sup>4</sup>**



1 in 5 surviving  
sepsis patients  
die within 2 years  
due to sepsis<sup>5</sup>



Kills ~250,000  
Americans  
annually and ~6  
million people  
worldwide<sup>6,7</sup>



Most prevalent  
and costly cause  
of hospital  
readmissions<sup>8</sup>

1. Liu, V., Escobar, G. J., Greene, J. D., et al. (2014). Hospital deaths in patients with sepsis from 2 independent cohorts. *Jama*, 312(1), 90-92.

2. Torio, C. M. and Moore, B. J. (2016). Statistical Brief# 204. Healthcare Cost and Utilization Project (HCUP). May.

3. McDermott, K. W., Elixhauser, A., Sun, R. (2017). Statistical Brief# 225. Healthcare Cost and Utilization Project (HCUP). June.

4. National Institute of General Medical Sciences. National Institutes of Health. Sepsis fact sheet. 2014.

5. Prescott, H. C., Osterholzer, J. J., Langa, K.M., et al. (2016). Late mortality after sepsis: propensity matched cohort study.

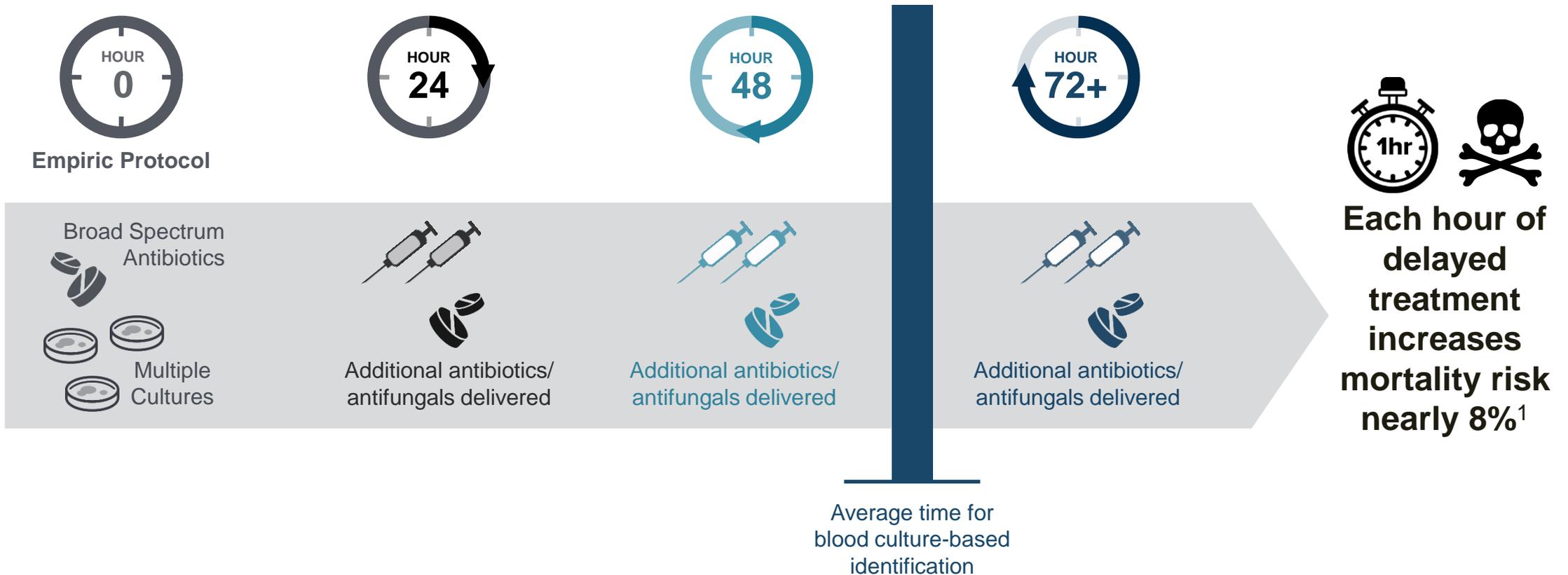
6. Centers for Disease Control and Prevention.

7. Gilbert, J. A. (2018). Sepsis care bundles: a work in progress. *The Lancet Respiratory Medicine*.

8. Mayr, F. B., Talisa, V. B., Balakumar, V., et al. (2017). Proportion and cost of unplanned 30-day readmissions after sepsis compared with other medical conditions. *JAMA*, 317(5), 530-531.

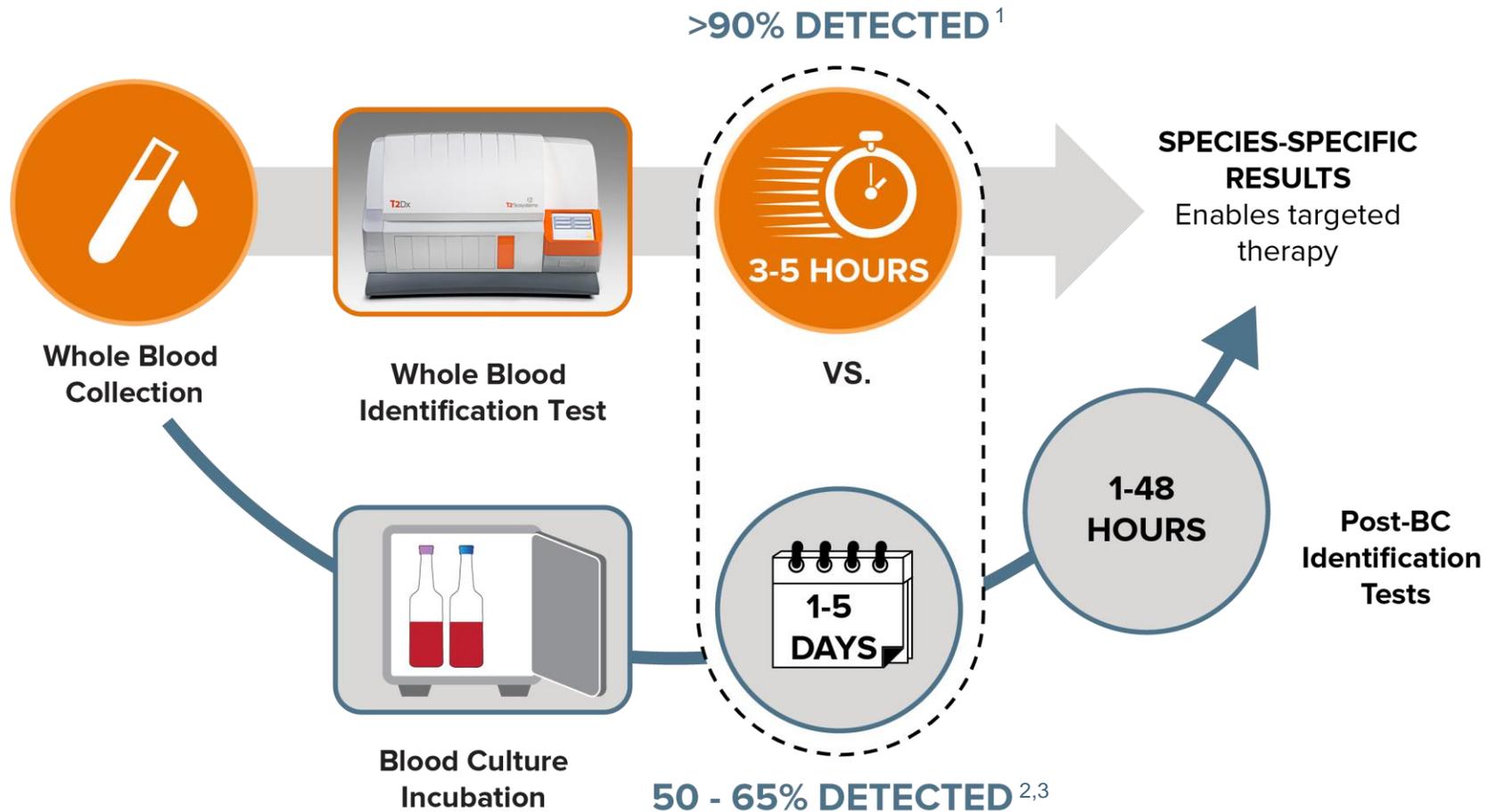
# Sepsis Poses an Hourly Challenge that Relies on Probability-Based Protocols

Patient journey: Current pathway and empiric “process”



# T2MR: New Standard in Detecting Sepsis Pathogens

T2Dx diagnostics provides faster and more accurate detection

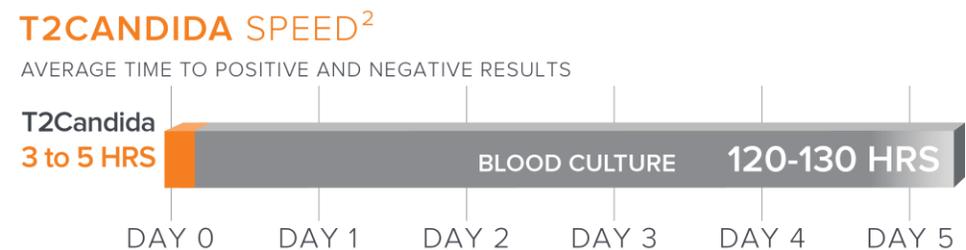
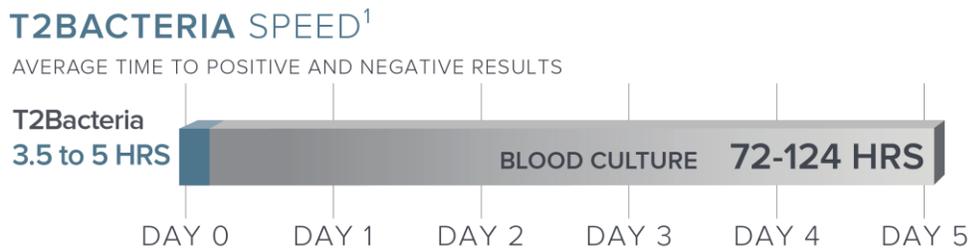
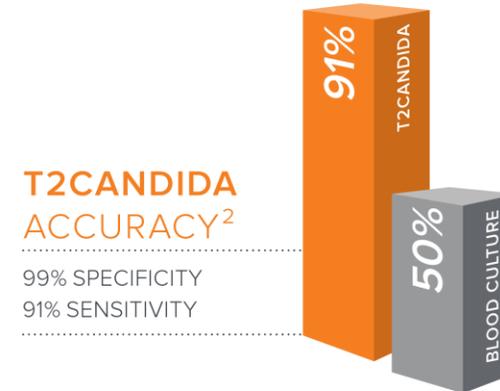
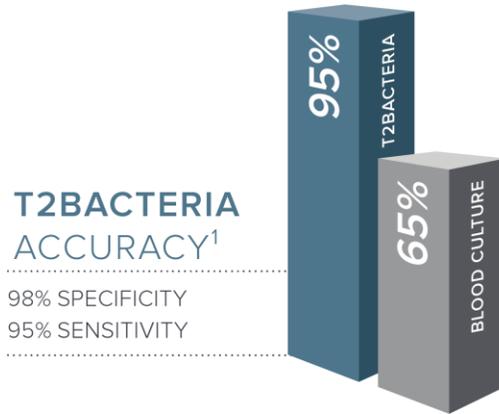


1. Mylonakis, E., Clancy, C. J., Ostrosky-Zeichner, L., et al. (2015). T2 magnetic resonance assay for the rapid diagnosis of candidemia in whole blood: a clinical trial. *Clinical Infectious Diseases*, ciu959.

2. Clancy, C. J., & Nguyen, M. H. (2013). Finding the "missing 50%" of invasive candidiasis: how nonculture diagnostics will improve understanding of disease spectrum and transform patient care. *Clinical infectious diseases*, 56(9), 1284-1292.

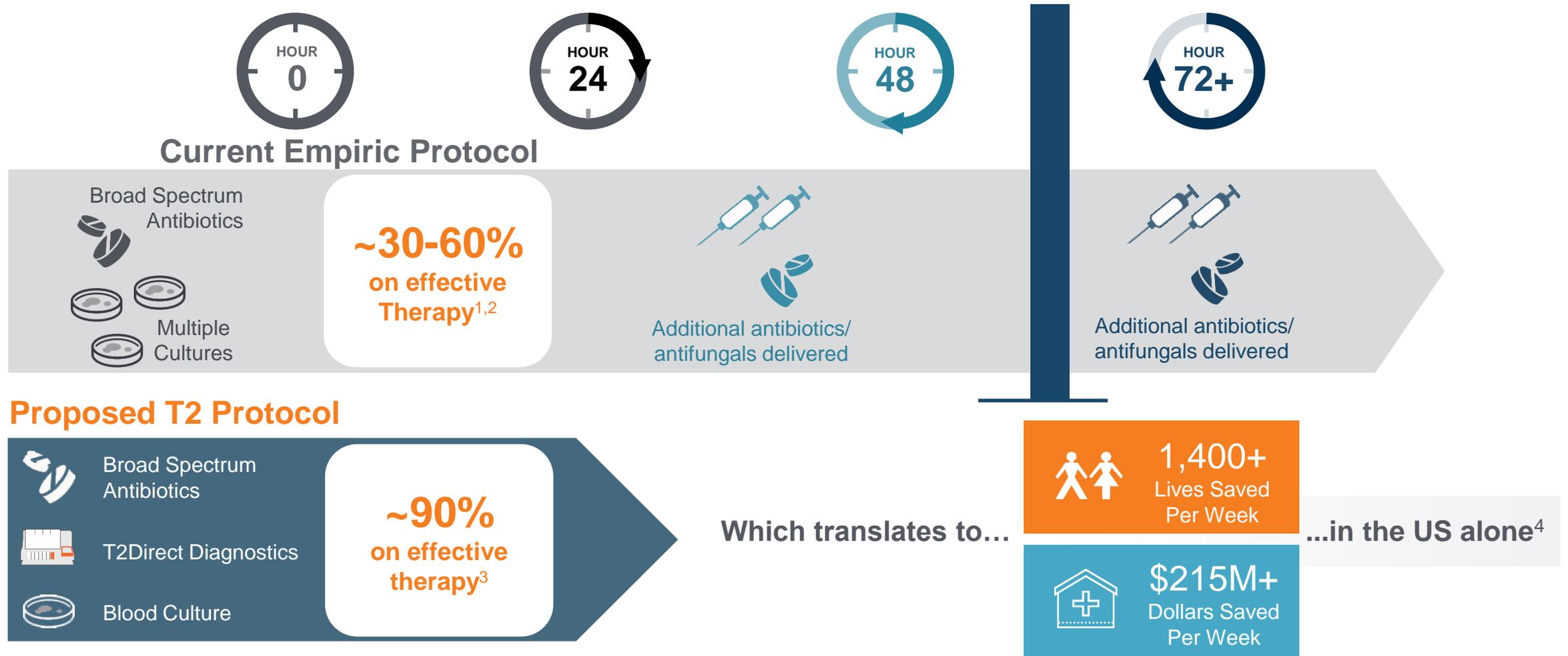
3. Cockerill III, F. R., Wilson, J. W., Vetter, E.A., et al. (2004). Optimal testing parameters for blood cultures. *Clinical Infectious Diseases*, 38(12), 1724-1730.

# The Blood Culture Divide



1. T2Bacteria Pivotal Clinical Study. Overall average sensitivity of 90% in prospective arm and 97% PPA in contrived arm.  
 2. Mylonakis, E., Clancy, C. J., Ostrosky-Zeichner, L., et. al. (2015). T2 magnetic resonance assay for the rapid diagnosis of candidemia in whole blood: a clinical trial. Clinical infectious diseases, ciu959.

# A Simple Change, an Immense Impact



1. T2Bacteria Clinical Pivotal Trial Data.  
 2. Buehler, S. S., Madison, B., Snyder, S. R., et al. (2016). Effectiveness of practices to increase timeliness of providing targeted therapy for inpatients with bloodstream infections: a laboratory medicine best practices systematic review and meta-analysis. *Clinical microbiology reviews*, 29(1), 59-103.  
 3. Kumar, A., Ellis, P., Arabi, Y., et al. (2009). Initiation of inappropriate antimicrobial therapy results in a fivefold reduction of survival in human septic shock. *CHEST Journal*, 136(5), 1237-1248.  
 4. Represents the potential healthcare savings and lives saved using the T2Direct Diagnostic to test high risk patients based on assumed levels of total annual patients assuming all high-risk sepsis patients are tested with T2Direct Diagnostics and assuming (i) 90% of high risk patients receive appropriate therapy within hours of the presentation of symptoms, (ii) a 50% mortality rate reduction for patients who receive rapid appropriate therapy, and (iii) that each new detected patient saves \$22,800. This slide contains T2's estimates, which are not based on historical results and constitute forward-looking statements that are subject to risks and uncertainties that could cause actual results to differ materially from those expressed or implied by such statement.

# T2Candida Panel is Changing Treatment Protocols

Growing number of real-world T2Candida success stories



- Study demonstrated \$2.3M in annual hospital savings
- Reduced median ICU length of stay by 7 days; overall stay by 4 days
- Most negative patients had antifungals discontinued or de-escalated saving \$\$.<sup>1</sup>



- Median length of stay reduced by 7 days
- Unnecessary antifungal therapy was avoided in >50% of patients
- Average net antifungal savings of ~\$195 for every patient tested<sup>2</sup>



- Pharmacy savings of ~\$280 per patient
- T2Candida detected 56% more positive patients than blood culture<sup>3</sup>



- 100% of patients who tested positive received appropriate therapy in <9 hours
- Therapy was discontinued for all patients who tested negative<sup>4</sup>

1. Wilson, N.M., Kenney, R.M., Tibbetts, R.J., et al. T2 Magnetic Resonance Improves the Timely Management of Candidemia. Poster Presentation IDWeek 2016.

2. Estrada, S. J. Real World Value of T2Candida Lee Memorial Hospital. Slide Presentation ASM 2016.

3. Kateon, H., Edwards, J., Sawyer, A., et al. Utilization of T2Candida Panel for the rapid detection of *Candida* species in a large community hospital. Poster Presentation IDWeek 2016.

4. Patel, F. and Young, E. Antifungal Prescribing During Initial Implementation of Candidemia Early Detection and Species Identification Testing with T2Candida Panel. Poster Presentation IDWeek 2016.

# T2Bacteria Pivotal Data Presented at ASM Microbe 2018

1,400 patient samples collected across 11 hospitals

## Comparisons to Blood Culture:

- Detected **69 patient** infections not detected by culture
- Provided results more than **2.5 days faster than culture** (5.4 hours)
- **68%** of patients with a BSI confirmed by T2 and blood culture could have benefitted from earlier rapid diagnostic result
- Noted advantage in detecting infected patients on antibiotics who were missed by blood culture

**Clinical performance of T2Bacteria among patients with bloodstream infections due to five common bacterial species**  
 MH Nguyen, W Pascual, PG Pappas, G Alangaden, G Pankey, B Schmitt, M Weinstein, R Widen, D Hernandez,  
 D Wolk, TJ Walsh, J Perfect, CJ Clancy, E Mylonakis  
 University of Pittsburgh, University of Alabama at Birmingham, Henry Ford Hospital, Ochsner Health System, Indiana University School of Medicine, Robert Wood Johnson University Hospital, Tampa General Hospital, Geisinger Health System, Weill Cornell Medicine of Cornell University, New York Presbyterian Hospital, Duke University, Alpert Medical School of Brown University

**INTRODUCTION**

- Value of blood cultures (BCx) for confirming the clinical diagnosis of sepsis is low:
  - 30% of patients with bacterial lung or GI infections had +BCx
  - Only 50% of patients with septic shock have + BCx
  - Only 5 to 15% of BCx drawn for any reason are +
- Timely administration of appropriate antibiotics improves outcomes
- Blood culture (BCx) is considered the gold standard for diagnosing BSI, but is limited by
  - Suboptimal sensitivity (10% in suspected bacteremia)
  - Slow turnaround time (average: 84 hours)
- Several nucleic acid amplification tests (NAATs) for detection of bacteria directly from blood have been developed
- Given the poor sensitivity of BCx, it may be more accurate to use composite microbiologic and clinical criteria in evaluating the performance of these non-cultural diagnostic tests
- T2Bacteria Panel (T2B) is an automated, rapid, culture-independent diagnostic test that identifies microbes directly from whole blood
- T2B identifies 5 target organisms responsible for ~50% of BSI
- T2B can detect bacteria at a density as low as 2 CFU/mL of whole blood

T2B Target	LoD (CFU/mL)
<i>Enterococcus faecium</i>	5
<i>Escherichia coli</i>	11
<i>Klebsiella pneumoniae</i>	2
<i>Pseudomonas aeruginosa</i>	5
<i>Staphylococcus aureus</i>	2

**GOAL**

- To evaluate the performance of T2B for diagnosing BSI

**METHODS**

- Prospective study with sample collections from Dec 2015 – August 2017
- 11 centers throughout the US
- Inclusion criteria: Patients (18-95 years of age) with a diagnostic BCx ordered per standard of care
- Samples T2B were run on a fully automated T2Bx Instrument
- Data analysis:
  - T2B performance versus paired BCx
  - T2B performance versus composite clinical/microbiologic criteria

Definitions	Clinical/Microbiologic Criteria
<b>Proven</b>	Paired BCx+ and T2B+ for same organism
<b>Probable</b>	BCx-/T2B+ but with positive culture for T2B organism in 1) blood or 2) extra-blood site within 14 days of paired sample
<b>Possible</b>	BCx-/T2B+ associated with infectious syndromes that fit clinical scenario of T2B+ result, but cultures were either not performed or negative

**RESULTS**

**A. Descriptive data**

- Paired samples from 1,427 unique patients were obtained
- 6% (82) of BCx were positive
  - 47% (39) were due to 5 T2B targets
- Mean time to BCx+: 51 ± 43 h (7.1 - 171 h)
- Mean time to BCx speciation: 83.7 ± 47.6 h (22.8-243.8 h)
- Mean time to T2B result: 5.4 ± 1.6 h (3.6 - 10 h)

**B. Summary of results**

4,427 Blood samples from unique patients

```

    graph TD
      A[4,427 Blood samples from unique patients] --> B[BCx+ for T2B targets (N=39)]
      A --> C[BCx- (N=1,388)]
      B --> D[True T2B+ (N=35)]
      B --> E[BCx-/T2B+ (N=155)]
      C --> F[True T2B- (N=1,233)]
    
```

**C. Sensitivity of T2B compared with BCx**

T2B Target	Sensitivity	95% CI
<b>Overall</b>	<b>90% (35/39)</b>	<b>75-97%</b>
<i>E. coli</i>	91% (10/11)	62-98%
<i>E. faecium</i>	100% (1/1)	21-100%
<i>K. pneumoniae</i>	100% (6/6)	61-100%
<i>R. aeruginosa</i>	100% (5/5)	57-100%
<i>S. aureus</i>	81% (13/16)	57-93%

**D. Receipt of *in vitro* effective antibacterial agents on the day of paired BCx+/T2B+ draw.**

T2B Target	Receipt of <i>in vitro</i> effective antibiotic on the day of paired BCx+/T2B+ draw
<i>E. coli</i>	20% (2/10)
<i>E. faecium</i>	0% (0/1)
<i>K. pneumoniae</i>	17% (1/6)
<i>R. aeruginosa</i>	20% (1/5)
<i>S. aureus</i>	46% (6/13)

*In vitro* effective therapy was defined as receipt of ≥1 dose of an antibiotic that has *in vitro* activity against >70% of the BSI bacterium based on antibiogram from four medical centers

- On the day of paired BCx+/T2B+ draw, only 34% (12/35) of patients received *in vitro* active antibiotics against the bloodstream isolate.
- 66% (23/35) would have benefited from earlier appropriate antibiotics if T2B tests were performed.

**RESULTS**

**D. False positive T2B rates according to BSI definitions**

- Discordant BCx-/T2B+ results were obtained in 11% (155/1,388) of samples.
- If BCx is used as gold standard for comparison, the false positive T2B+ rate would be 11% (155/1,388)
  - the sensitivity of BCx in confirming sepsis is low → BCx is not an ideal comparator to assess the performance of any non-culture diagnostic assay
- When probable and/or possible BSI criteria were used for comparison, the false positivity T2B+ rate improved to 6% (90/1,388) and 4% (53/1,388), respectively.

**F. Specificity of T2B compared with composite criteria**

T2B Target	Proven BSI	Proven & Probable BSI	Proven, Probable & Possible BSI
<i>E. coli</i>	96%	97%	98%
<i>E. faecium</i>	99%	100%	100%
<i>K. pneumoniae</i>	98%	99%	100%
<i>R. aeruginosa</i>	98%	98%	99%
<i>S. aureus</i>	98%	100%	100%

**CONCLUSIONS**

- T2B demonstrates excellent performance in detecting BSI
  - Overall sensitivity: 90%
  - Detects 5 bacteria accounting for ~50% of BSI
  - Use T2B in conjunction with BCx
- The specificity of T2B was:
  - 96-99% when BCx was used as gold standard comparator
  - 98-100% when composite clinical/microbiologic criteria was used
- Our data clearly demonstrate the limitations of BCx as gold standard for both diagnostic and study design purposes
- Among the patients with discordant BCx-/T2B+ samples, evidence of infection was identified in 70%
  - T2B+ matched the bacteria recovered from blood or non-blood site cultures
  - T2B+ patients had clinical pictures that fit infection syndromes caused by bacteria identified by T2B
  - Of note, 52% of patients had received antecedent antibiotics
- Potential advantages of T2B over BCx:
  - Detect bacteremia several days before BCx (3-5 hours versus 2-3 days)
  - Diagnose infections missed by BCx
    - Patients with antecedent antibiotics
    - Patients with extra-blood site infections
- Inform appropriate therapy within hours of blood draw
  - 66% of patients with BCx+/T2B+ would have benefited from earlier appropriate antibiotics if T2B was performed.

# Significant Burden of Bacterial Infection and Sepsis

Payors should support and incentivize revised protocols

**Add  
T2Bacteria  
&  
T2Candida**

**>90% of  
patients on the  
right targeted  
therapy within  
6 to 8 hours**



Representing \$27B in U.S. healthcare costs<sup>1,2</sup>

**~\$25,000 Cost Savings**

Per patient if on right therapy  
within 24 hours<sup>3</sup>

**Billions of Dollars**

In savings for hospitals, including  
decreased readmissions<sup>4</sup>

**50% Reduction**

In mortality for patients with rapid  
effective treatment<sup>5</sup>

**Patients Benefit**

From reduction in long-term  
side-effects

1. Torio, C. M. and Moore, B. J. (2016). Statistical Brief# 204. Healthcare Cost and Utilization Project (HCUP). May.

2. McDermott, K. W., Elixhauser, and A., and Sun, R. (2017). Statistical Brief# 225. Healthcare Cost and Utilization Project (HCUP). June.

3. Estimated economic impact based on customer experience with T2Candida Panel; Bilir, S. P., Ferrufino, C. P., Pfaller, M. A., and Munakata, J. (2015); and studies for target bacterial species.

4. See slide 11.

5. Leibovici, L., Shraga, I., Drucker, M., et al.(1998). The benefit of appropriate empirical antibiotic treatment in patients with bloodstream infection. Journal of internal medicine, 244(5), 379-386.

# Established Reimbursement Across Multiple Care Environments

Financially attractive in all settings

## Point-of-Care Testing

Emergency Room  
Outpatient Settings

- CPT 87640, 87798
- Coverage if not admitted; other outpatient settings
- ER is most common setting

	T2Bacteria
Reimbursement	\$220
Cost of Test	\$150

## In-Patient Hospital

Admitted from ER  
Admitted for Unrelated Procedure

- DRG 870, 871, 872
- Coverage if admitted or already admitted
- Example DRG Reimbursement: \$35,000<sup>1</sup>

	T2Bacteria	T2Candida
Cost of Test	\$150	\$200
Percent of DRG	0.4%	0.6%

1% of DRG

# The T2Dx Impact

Improve the quality of patient care while reducing healthcare costs

## Targeted Rx

- Reduced resistance
- Reduced length of stay
- Potential reduction in morbidity and mortality



## Efficient use of limited resources

- Reduced repeat testing
- Reduced unnecessary Rx
- Reduced time waiting for diagnostic test results

# Adoption Drives Revenue and Rapid Pay Back

Doing well by doing good

## Typical High Risk Patients In Target Market

Patients Suspected of Sepsis	3,000
Patients Suspected of Fungal Infections	375

## Potential Hospital Utilization Scenario

	Patients Tested	Price per Test	Total Revenue
T2Bacteria	1,500	\$150	\$225,000
T2Candida	375	\$200	\$75,000
<b>Annual Recurring</b>	<b>1,875</b>		<b>\$300,000</b>
<b>T2Dx Instrument</b>		\$100,000 unit price	

In this example, patients suspected of sepsis are screened with the T2Bacteria Panel in the ER and throughout portions of the hospital as part of a sepsis protocol.

# Commercial Strategy

Global expansion of T2Direct Diagnostics driven by T2Bacteria Panel launch



## United States

### Direct Sales

- **Organization:** 15 sales reps, expanding to 16 Y/E 2018, and 3 medical affairs liaisons expanding to 5 by Y/E 2018
- **Target:** 1,200 hospitals with the highest concentration of patients at risk for sepsis-related infections

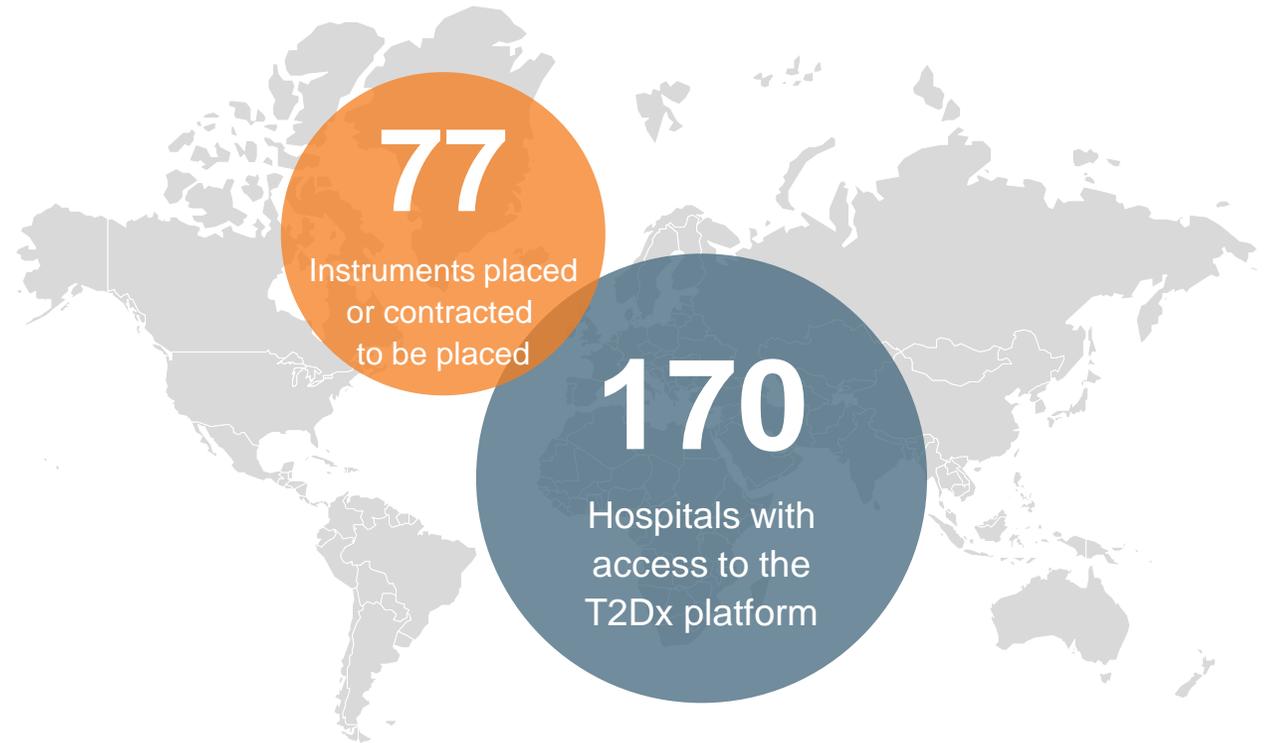


## International

### Distributor Sales in 19 Countries

- 8 distribution partners supported by small team of direct sales/marketing and field service personnel

## Expanding on the existing T2Dx installed base



# Comprehensive Commercial Tactics

Global expansion of T2Direct Diagnostics driven by T2Bacteria Panel launch

## Medical Meetings & Conferences



## Digital Marketing



WEBINAR: "Sepsis Management: The Emergence of Rapid Diagnostics in the ED." Sepsis, the #1 cause of death in US hospitals, has a mortality that exceeds prostate cancer, breast cancer and AIDS combined. As many as 92% of s...see more

**LIVE LECTURE**  
**Sepsis Management: The Emergence of Rapid Diagnostics in the Emergency Department**  
 SPEAKER: W. Frank Peacock IV, MD, FACEP, FCCP  
 Professor of Emergency Medicine, Associate Chief, ICU Research Director for the Department of Emergency Medicine at the Baylor College of Medicine

WEBINAR SEPT. 18, 2018 11:00 AM ET T2 Biosystems

37 Likes · 3 Comments

JOIN US AT ASM Microbe 2018  
 Booth #1751 | June 7-10 | Atlanta, Georgia

Learn more about how you can **improve blood culture and get patients on targeted therapy faster than ever before!**

Don't miss this exciting new technology! **T2Direct** is the only rapid diagnostic that can identify gram-positive and gram-negative pathogens from blood cultures.

**Booth Presentation #1751**

**Dates:** June 10, 10:00 am - 11:00 am

**Location:** Booth #1751, Booth #1752, Booth #1753, Booth #1754, Booth #1755, Booth #1756, Booth #1757, Booth #1758, Booth #1759, Booth #1760, Booth #1761, Booth #1762, Booth #1763, Booth #1764, Booth #1765, Booth #1766, Booth #1767, Booth #1768, Booth #1769, Booth #1770, Booth #1771, Booth #1772, Booth #1773, Booth #1774, Booth #1775, Booth #1776, Booth #1777, Booth #1778, Booth #1779, Booth #1780, Booth #1781, Booth #1782, Booth #1783, Booth #1784, Booth #1785, Booth #1786, Booth #1787, Booth #1788, Booth #1789, Booth #1790, Booth #1791, Booth #1792, Booth #1793, Booth #1794, Booth #1795, Booth #1796, Booth #1797, Booth #1798, Booth #1799, Booth #1800

**Event:** ASM Microbe 2018

**Event Type:** Booth Presentation

**Event Location:** Atlanta, Georgia

**Event Dates:** June 10, 2018

**Event Time:** 10:00 am - 11:00 am

**Event Description:** Learn more about how you can improve blood culture and get patients on targeted therapy faster than ever before!

**Event Contact:** T2 Biosystems

**Event Website:** [http://www.asm-microbe.com](#)

**Event Registration:** [http://www.asm-microbe.com](#)

**Event Tickets:** [http://www.asm-microbe.com](#)

**Event Photos:** [http://www.asm-microbe.com](#)

**Event Videos:** [http://www.asm-microbe.com](#)

**Event Reviews:** [http://www.asm-microbe.com](#)

**Event Comments:** [http://www.asm-microbe.com](#)

**Event Tags:** [http://www.asm-microbe.com](#)

**Event Hashtags:** [http://www.asm-microbe.com](#)

**Event Keywords:** [http://www.asm-microbe.com](#)

**Event Location:** [http://www.asm-microbe.com](#)

**Event Dates:** [http://www.asm-microbe.com](#)

**Event Time:** [http://www.asm-microbe.com](#)

**Event Description:** [http://www.asm-microbe.com](#)

**Event Contact:** [http://www.asm-microbe.com](#)

## Targeted Social Media and Email Campaigns



Rapid diagnosis and treatment of sepsis can save lives. The only way to leapfrog blood culture!

Learn how you can improve blood culture and get patients on targeted therapy faster than ever before!

Don't miss this exciting new technology! **T2Direct** is the only rapid diagnostic that can identify gram-positive and gram-negative pathogens from blood cultures.

**Booth Presentation #1751**

**Dates:** June 10, 10:00 am - 11:00 am

**Location:** Booth #1751, Booth #1752, Booth #1753, Booth #1754, Booth #1755, Booth #1756, Booth #1757, Booth #1758, Booth #1759, Booth #1760, Booth #1761, Booth #1762, Booth #1763, Booth #1764, Booth #1765, Booth #1766, Booth #1767, Booth #1768, Booth #1769, Booth #1770, Booth #1771, Booth #1772, Booth #1773, Booth #1774, Booth #1775, Booth #1776, Booth #1777, Booth #1778, Booth #1779, Booth #1780, Booth #1781, Booth #1782, Booth #1783, Booth #1784, Booth #1785, Booth #1786, Booth #1787, Booth #1788, Booth #1789, Booth #1790, Booth #1791, Booth #1792, Booth #1793, Booth #1794, Booth #1795, Booth #1796, Booth #1797, Booth #1798, Booth #1799, Booth #1800

**Event:** ASM Microbe 2018

**Event Type:** Booth Presentation

**Event Location:** Atlanta, Georgia

**Event Dates:** June 10, 2018

**Event Time:** 10:00 am - 11:00 am

**Event Description:** Learn more about how you can improve blood culture and get patients on targeted therapy faster than ever before!

**Event Contact:** T2 Biosystems

**Event Website:** [http://www.asm-microbe.com](#)

**Event Registration:** [http://www.asm-microbe.com](#)

**Event Tickets:** [http://www.asm-microbe.com](#)

**Event Photos:** [http://www.asm-microbe.com](#)

**Event Videos:** [http://www.asm-microbe.com](#)

**Event Reviews:** [http://www.asm-microbe.com](#)

**Event Comments:** [http://www.asm-microbe.com](#)

**Event Tags:** [http://www.asm-microbe.com](#)

**Event Hashtags:** [http://www.asm-microbe.com](#)

**Event Keywords:** [http://www.asm-microbe.com](#)

## Publications / Economic Models

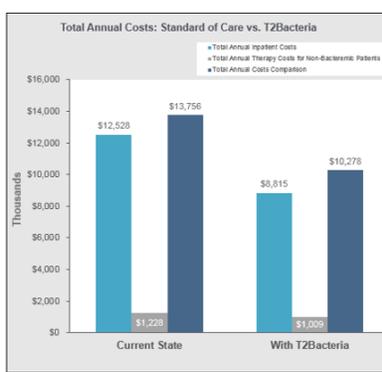
### Utilizing Same-Day Sepsis Pathogen ID for Faster Therapy, Enhanced Stewardship, Improved Outcomes

Cornelius J. (Neil) Clancy, M.D.

20 June 2018



### T2Direct Diagnostics™ Economic Model



**Use of T2MR in Invasive candidiasis with and without candidemia**

Use of T2MR in invasive candidiasis with and without candidemia. T2MR is a rapid, accurate, and easy-to-use diagnostic for invasive candidiasis. It can identify the pathogen responsible for the infection, allowing for targeted therapy and improved outcomes. T2MR is the only rapid diagnostic that can identify gram-positive and gram-negative pathogens from blood cultures.

# Commercial Activity Related to T2Bacteria Launch

Step up in proposals is first leading indicator

New proposals delivered to  
U.S. customers during 4Q17-3Q18



11 of these  
proposals  
have been  
converted to  
new contracts

6-12 month  
sales cycle

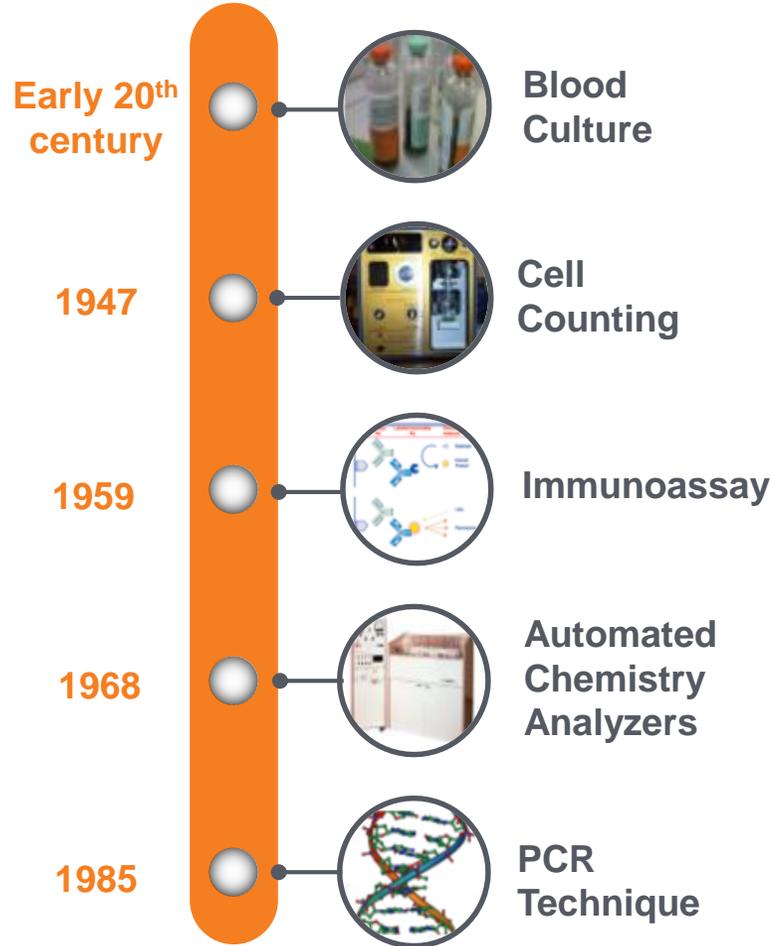
■ New Proposals    ■ New Contracts

**2-3X**  
increase in customer proposals  
versus prior year  
(4Q16-3Q17)

Opportunity to double U.S.  
installed base

# Breakthroughs in Medical Diagnostics

First and only FDA-cleared diagnostic to detect pathogens directly from blood



## Direct Sample Analysis Identify Pathogens Using Magnetic Resonance



# Product Pipeline Highlights – Enabled by Highly-Sensitive Detection

Directly from whole blood – no requirement for blood culture

		2016	2017 & 2018	2019 & beyond	
SEPSIS	FUNGAL	T2Candida Panel CE Marked & FDA cleared	T2Candida auris Panel Research Use Only including environmental testing		
	BACTERIAL		T2Bacteria Panel CE Marked & FDA cleared	T2Carba Resistance+ Gram-negative resistance markers	CARB-X Additional bacterial species and resistance markers, including ESBL and gram-positive
	BACTERIAL RESISTANCE			 Powered by <b>CARB-X</b>	Powered by <b>CARB-X</b>
	TICK-BORNE				T2Lyme Panel <b>Canon</b>

# Financial Summary<sup>1</sup>

September 30, 2018		
Revenue	3Q18	\$2.5M
	2Q18	\$3.9M
	3Q17	\$1.1M
Product Revenue	3Q18	\$1.2M
	2Q18	\$1.2M
	3Q17	\$0.7M
Product Growth	YoY	71%
Cash Burn	3Q18	\$10.5M
Cash <sup>4</sup>		\$60.4M
Common Shares Outstanding		43.8M
Quarterly Cash Burn (2018 vs. 2017)		-12.5% YoY

>5% Investors – As of September 30, 2018 <sup>2,3</sup>	
Canon Life Sciences	13.8%
Goldman Sachs	9.7%
Senvest Management	7.6%

1. All amounts are rounded to the nearest hundred thousand.
2. Based on 44,038,754 shares outstanding as of September 30, 2018.
3. Source SEC filings as of November 7, 2018.
4. Includes \$180k restricted cash.

# Guidance

2018 Guidance	
<b>Total revenue</b>	<b>\$10.5 - \$12.0 million</b>
Product revenue	\$5.0 - \$5.9 million
Research revenue	\$5.5 - \$6.1 million
<b>2H18 T2Dx placements:</b>	<b>20 - 25</b>
<b>2H18 high-risk patient adds:</b>	<b>75,000+ achieved 35,000+ in 4Q18</b>
<b>3Q &amp; 4Q operating expense:<sup>1</sup></b>	<b>\$10.8 - \$11.8 million<sup>2</sup></b>

Long-Term Targets	
<b>Total revenue</b>	Doubling in 2019 and 2020 to at least \$50 million in 2020
<b>Breakeven model:</b>	
Total revenue	\$65 - \$70 million
Gross margin	~50%
SG&A	~30 - 35%
R&D	~15 - 20%

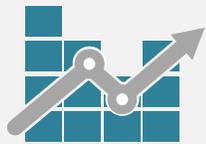
1. Excluding cost of product revenue.

2. Including non-cash depreciation and stock based compensation expenses of approximately \$2.0 million in each quarter and non-cash stock based compensation from performance-based RSUs of \$0.8 million in each quarter.

\* This slide contains T2's future goals and aspirations, which constitute forward-looking statements that are subject to risks and uncertainties that could cause actual results to differ materially from those expressed or implied by such statements. See "Forward-Looking Statements" on slide 2.

# Investment Highlights

A platform technology with multiple, billion-dollar franchise opportunities



## T2MR

Innovative technology - broad applications



## Market

\$2B+ Initial market potential



## Sepsis Pathogen ID

Provide species-specific results, direct from whole blood, in 3 to 5 hours



## Reimbursement

Covered by existing reimbursement codes



## Robust Pipeline

A new generation of diagnostics



## Execution

Patient access growing, key collaborations established