



## **Study Published in PLOS ONE Demonstrates Effectiveness of Great Basin Scientific's Patented Amplification Suppressor Technology**

*Technology shown to distinguish disease causing potentially life threatening Staphylococcus strains from Staphylococcus present due to environmental contamination, supporting more accurate diagnosis, better patient care and healthcare cost savings*

**Salt Lake City, April 6, 2017** – Great Basin Scientific, Inc. (OTCQB: GBSN), a molecular diagnostics company, today announced that a research article, “*A Novel Approach to Eliminate Detection of Contaminating Staphylococcal Species Introduced During Clinical Trial*,” was published in PLOS ONE, a peer-reviewed scientific journal. The full article can be read [here](#).

Authored by Great Basin's Chief Technology Officer and Senior Vice President of R&D, Rob Jenison, and Great Basin scientists, Wanyuan Ao, PhD, Adrienne Clifford, and Maylene Corpuz, the article describes a study that demonstrates how the Company's patented amplification suppressor technology is capable of distinguishing between *Staphylococcus* species present in a clinical sample from a *Staphylococcus* contamination that is introduced during the sample collection or testing process. Great Basin's technology was demonstrated to completely block detection of contaminants present in the environment that may result in a false positive result and potential misdiagnosis of a patient, while not negatively impacting the appropriate clinical assay limit of detection.

“Most molecular diagnostic tests are challenged to distinguish whether *Staphylococcus* is truly present in a patient's sample or whether the sample has been contaminated by environmental *Staph* species, which can result in patient misdiagnosis and improper treatment that puts the patient at further risk, increases healthcare costs and burdens medical institutions,” said Jenison. “The results of this study illustrate how our amplification suppressor technology can eliminate false positive results, which would aid physicians and hospitals in administering proper care and avoiding unnecessary costs. This technology could also be generalized to any isothermal or PCR-based nucleic acid amplification reaction, providing the potential to extend its usefulness to a broad range of tests, which supports Great Basin's goal of delivering the industry's most accurate and cost-effective assays for diagnosing infectious disease.”

Great Basin is utilizing this patented technology for its Staph ID/R Blood Culture Panel, enabling



the assay to detect a higher specificity of *Staphylococcus* species present in positive blood cultures, and will be used in the Company's in-development SA Nasal Screen Test along with other future tests and panels. Great Basin [announced a U.S. patent for the PCR Amplification Suppressor](#) in November 2016.

The study, led by Jenison, describes how application of the suppressor approach improves the specificity of detection of pathogenic *Staphylococcus* species present in positive blood cultures. In the article, sufficient quantities of non-target *Staphylococcal* cells or synthetic oligonucleotides – termed “suppressor” – were added to helicase-dependent isothermal amplification reactions such that amplification of contaminating *Staphylococci* present at levels below the quantities present in positive blood cultures were successfully suppressed and undetectable in the assay. The authors demonstrated that using this approach, contamination rates of as high as 40% were reduced to zero.

Great Basin's molecular diagnostics system offers low-plex and multiplex testing, with commercial assays available for the detection of Shiga Toxin-producing *Escherichia coli* (STEC), Group B *Streptococcus* (GBS), Toxigenic *Clostridium difficile* (*C. diff*), and a Staph ID/R Blood Culture Panel (SIDR) for identifying bloodstream infections caused by MRSA and other *Staphylococcus* species. Additionally, the Company announced this week that it received 510(k) clearance from the U.S. Food & Drug Administration (FDA) for the Bordetella Direct Test, which will be commercially launched later this month. The Company is awaiting FDA clearance on a Stool Bacterial Pathogens Panel, and has other tests in development, including a direct-from-blood Candida Blood Infections Panel, CT/NG Test, and a Nasal *S. aureus* Pre-surgical Screen test.

### **About Great Basin Scientific**

Great Basin Scientific is a molecular diagnostics company that commercializes breakthrough chip-based technologies. The Company is dedicated to the development of simple, yet powerful, sample-to-result technology and products that provide fast, multiple-pathogen diagnoses of infectious diseases. The Company's vision is to make molecular diagnostic testing so simple and cost-effective that every patient will be tested for every serious infection, reducing misdiagnoses and significantly limiting the spread of infectious disease. More information can be found on the company's website at [www.gbscience.com](http://www.gbscience.com).

**Forward-Looking Statements**

This press release includes forward-looking statements regarding events, trends and business prospects, which may affect future operating results and financial position, including but not limited to statements regarding potential applications of the Company's products, commercialization timelines and market acceptance of and demand for the Company's technology and products. Forward-looking statements involve risks and uncertainties, which could cause actual results to differ materially, and reported results should not be considered as an indication of future performance. These risks and uncertainties include, but are not limited to: changes in customer needs; competition in the industry being greater than anticipated; the Company's limited operating history and history of losses; its ability to develop and commercialize new products and the timing of commercialization; its ability to obtain sufficient capital to continue as a going concern and implement our business plan; and other risks set forth in filings with the Securities and Exchange Commission, including the risks set forth in the Company's Annual Report on Form 10-K for the year ended December 31, 2016. These forward-looking statements speak only as of the date hereof, and Great Basin specifically disclaims any obligation to update these forward-looking statements, except as required by law.

**Company Contact:**

Betsy Hartman  
Great Basin Scientific  
385.215.3372  
[ir@gbscience.com](mailto:ir@gbscience.com)

###