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BioSig Awarded US Patent Claims for its PURE EP™ Noise-Filtering Technology

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- **Claims address computer-implemented systems and methods for filtering noise from input cardiac signals using its PURE EP™ technology**
- **The Company now has 49 issued or allowed worldwide patents covering its novel technology for arrhythmia care**

BioSig Technologies, Inc. (NASDAQ: BSGM) ("BioSig" or the "Company"), a medical technology company commercializing an innovative signal processing platform designed to improve signal fidelity and uncover the full range of ECG and intra-cardiac signals, today announced that the US Patent Office had allowed a utility patent covering its PURE EP™ noise-filtering technology. The recently allowed patent application number 17/091,357 entitled "*Universal Notch Filter*" was filed on November 6, 2020. The patent describes and claims computer-implemented methods for filtering noise from an input signal.

Generally, some current electrophysiology (EP) recording systems can effectively support the treatment of arrhythmias such as atrial flutter and supraventricular tachycardia, which show up as large-amplitude, low-frequency signals. However, more complex and prevalent arrhythmias, such as atrial fibrillation and ventricular tachycardia, which are characterized by low-amplitude, high-frequency signals, have not found an effective evaluation of all relevant signals.

This signal detection, acquisition, and isolation can be further complicated by equipment line noise and pacing signals. Current EP recorders use low-pass, high-pass, and notch filters to remove noise and artifacts from the various electrical signal information. Unfortunately, conventional filtering techniques can alter signals and make it difficult or impossible to see low-amplitude, high-frequency signals that can be inherent in cardiac monitoring, the visualization of which signals could help treat atrial fibrillation and ventricular tachycardia. It has been recently recognized that the assurance of waveform integrity, such as for the noise-free acquisition of IC and ECG signals in an EP environment, had not been previously accomplished due to contamination of various signals by artifacts and noise.

The patented PURE EP™ System can record raw (unaltered) cardiac and other physiologic signals with multiple display options, low noise, and a large input signal dynamic range. This is achieved using a low-noise amplifier topology with minimal filtering to band-limit the signal and a high-resolution A/D converter. In addition, the PURE EP™ System can provide large-signal (e.g., from a defibrillator) input protection and radio frequency (RF) signal (e.g., from ablation) noise suppression. There is no need for gain switching in this architecture, and the full range of input signals is digitized with high resolution.

"We are pleased to announce this newest patent allowance which demonstrates the clinical significance of our PURE EP™ System in filtering noise from complex signals in the EP setting," commented Kenneth L. Londoner, Chairman, and CEO of BioSig Technologies, Inc. "We believe we have the leading patent-protected solution for providing superior intracardiac signal information to electrophysiologists during catheter ablation procedures across all types of cardiac arrhythmias."

One in 18 Americans suffers from a cardiac arrhythmia. Atrial fibrillation is the most common arrhythmia type, affecting over 33 million people worldwide, including over 6 million in the U.S. The number of people suffering from atrial fibrillation is expected to reach 8-12 million by 2050¹. According to the Centers for Disease Control and Prevention (CDC), atrial fibrillation causes more than 750,000 hospitalizations in the U.S. each year, resulting in approximately \$6 billion in healthcare spending annually².

About BioSig Technologies

BioSig Technologies is a medical technology company commercializing a proprietary biomedical signal processing platform designed to improve signal fidelity and uncover the full range of ECG and intra-cardiac signals (www.biosig.com).

The Company's first product, PURE EP™ System is a computerized system intended for acquiring, digitizing, amplifying, filtering, measuring and calculating, displaying, recording, and storing electrocardiographic and intracardiac signals for patients undergoing electrophysiology (EP) procedures in an EP laboratory.

Forward-looking Statements

This press release contains "forward-looking statements." Such statements may be preceded by the words "intends," "may," "will," "plans," "expects," "anticipates," "projects," "predicts," "estimates," "aims," "believes," "hopes," "potential" or similar words. Forward-looking statements are not guarantees of future performance, are based on certain assumptions and are subject to various known and unknown risks and uncertainties, many of which are beyond the Company's control, and cannot be predicted or quantified and consequently, actual results may differ materially from those expressed or implied by such forward-looking statements. Such risks and uncertainties include, without limitation, risks and uncertainties associated with (i) the geographic, social and economic impact of COVID-19 on our ability to conduct our business and raise capital in the future when needed, (ii) our inability to manufacture our products and product candidates on a commercial scale on our own, or in collaboration with third parties; (iii) difficulties in obtaining financing on commercially reasonable terms; (iv) changes in the size and nature of our competition; (v) loss of one or more key executives or scientists; and (vi) difficulties in securing regulatory approval to market our products and product candidates. More detailed information about the Company and the risk factors that may affect the realization of forward-looking statements is set forth in the Company's filings with the Securities and Exchange Commission (SEC), including the Company's Annual Report on Form 10-K and its Quarterly Reports on Form 10-Q. Investors and security holders are urged to read these documents free of charge on the SEC's website at <http://www.sec.gov>. The Company assumes no obligation to publicly update or revise its forward-looking statements as a result of new information, future events or otherwise.

¹ Top 10 Things You should Know About Heart Rhythm; Scripps Health.

² Managing Atrial Fibrillation; Lisa Eramom MA, Medical Economics Journal, February 25, 2019, Volume 96, Issue 4

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