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**UPDATE: Since this letter's mailing the Company announced that its ViralClear subsidiary halted its Phase 2 COVID-19 trial and that it will not continue the development of merimepodib; therefore, much of the information regarding ViralClear in this letter is out of date. Click here to read the full version of the October 26, 2020 announcement.**

# LETTER TO SHAREHOLDERS

October 2020

Dear BioSig Shareholder,

As we enter the final stretch of 2020, I want to reflect on some of the achievements we've made in a year that has been among the most transformative in BioSig's history.

In 2020, we raised $39 million and as of June 30, 2020 had $36.9 million in cash on our balance sheet, putting us in the strongest financial position in our corporate history. Our flagship signal acquisition and analysis technology, the PURE EP™ System, is gaining acceptance at medical centers of excellence and with prominent cardiac electrophysiologists across the United States. Our sales, marketing and technical team has been expanded and is stronger than ever, moving us into the end of the year with a pipeline of anticipated installations for evaluation.

ViralClear Pharmaceuticals, Inc., our majority-owned subsidiary, and its oral anti-viral molecule, merimepodib (MMPD, an IMPDH inhibitor), have advanced rapidly into an expanded Phase 2 human trial for the treatment of COVID-19. We are pleased that revising the protocol allows us the potential to detect a signal for a clinical benefit that might result in the initiation of a pivotal trial for FDA approval.

## GROWING PURE EP ADOPTION AND DATA COLLECTION

Our commercial team made substantial progress in expanding the number of clinical sites that are installing the PURE EP™ System for evaluation. Our clinical team promptly returned to the field in early May, after approximately six weeks of COVID-19-related restrictions. They have been conducting daily patient cases with PURE EP™ System ever since. Recently, we installed the PURE EP™ System at Massachusetts General Hospital (MGH) and The University of Pennsylvania Hospital - two major clinical and research hubs on the east coast. Both centers are regarded for their outstanding contributions to medical innovation, and we could not be happier to be working with them. There are several other clinical sites that will be receiving our technology in the coming months, and we are on track to install our technology in up to ten hospitals across the country by year end.

In September, we released a study abstract featuring clinical data collected with the PURE EP™ System at the European Society of Cardiology's ESC Congress 2020. The abstract, co-authored by six physicians from the Texas Cardiac Arrhythmia Institute at St. David's Medical Center in Austin, TX, provided meaningful insights:

the study concluded that the PURE EP™ System was able to produce reliable and high-quality signals that were preferred to conventional sources of intracardiac signals in a blinded, independent analysis.

Shortly after ESC Congress 2020, our latest abstract was accepted to Computing in Cardiology 2020 conference. This manuscript revealed our first efforts in developing machine learning solutions for PURE EP™. The paper, co-authored by Dr. Alexander D. Wissner-Gross, of Reified LLC, Suraj Kapa, M.D. of Mayo Clinic and our engineering team, presented a novel method for computationally reconstructing the spatial placement of electrocardiogram (ECG) leads using only correlations between their recorded signals and without requiring external calibration or other prior knowledge. The ability to distill high-dimensional ECG recordings into simple geometric arrangements could open the door to multiple applications of potential clinical value, such as highlighting any misplacement of electrodes and improved automated classification of patient conditions with less training. This method is our first win in developing AI-powered solutions for electrophysiology, and we would like to thank Dr. Kapa for his expert physician guidance and Dr. Wissner-Gross for his outstanding technical leadership and excellent presentation during the conference. We are dedicated to bringing first-class AI-powered solutions developed on our precise, raw clinical data to enhance the field of electrophysiology and look forward to unveiling more algorithms in the future.

Delivering value to physicians is paramount to us, and we are pleased to report several recent insights from prominent physicians that are using the PURE EP™ System in their practice. During a public teleconference held on September 15, 2020, our clinical team unveiled a patient case that was conducted by Dr. Natale of Texas Cardiac Arrhythmia Institute. In the video titled 'High Fidelity Intracardiac Signals Can Help Visualize Conduction Pathways Faster' Dr. Natale reviews a complex clinical case that he conducted with the PURE EP™ System on a patient that had endured multiple failed ablation procedures. He comments on the difference that the quality of the intracardiac signal recordings can make in identifying critical areas during the procedure. This video is available on our website under PURE EP / Physician Insights.

Most recently, our technology was prominently featured during a live patient case conducted during the 15th Annual International Symposium on Ventricular Arrhythmias. On October 10, a team of physicians from Texas Cardiac Arrhythmia Institute broadcast a complex ventricular tachycardia case. During this live broadcast, the physician team and the symposium panel reviewed the role that some of PURE EP™ features, such as our high-frequency filter, played in the identification of mid-diastolic potentials for treatment of complex arrhythmias. We would like to thank our clinical team for supporting this live case – first of many!

## STRONG SALES AND MARKETING TEAM

The growth engine behind our core business in the commercial adoption of PURE EP™ System is our sales and marketing team, which is led by John Kowalski, VP of Sales. John brought to us more than 30 years of experience in medical device sales, including more than 20 years at Biosense Webster, a Johnson & Johnson company he was with as it grew from under $10 million in sales to over $2 billion annually during his tenure. Olivier Chaudoir, who leads our marketing team, has over 20 years of medical technology experience, including over 15 years in electrophysiology. Most recently, Mr. Chaudoir served as Worldwide Senior Global Strategic Marketing Director at DePuy Synthes, a Johnson & Johnson company. His engineering background and extensive knowledge of the electrophysiology market is a winning combination that allows him to successfully connect global physician audiences with the benefits of our novel technology. Additionally, Julie

Stephenson, VP of Clinical Affairs, brought to BioSig over 20 years of cardiac device experience having served in various clinical, sales, and marketing roles at Medtronic, Boston Scientific, and Guidant Corporation. Ms. Stephenson excels in physician engagement and education – two of the most vital elements of a new technology adoption cycle. This team is paving the way towards sales and revenues as we continue to engage more perspective clinical sites and conduct new installations for technology evaluations.

## THE COVID-19 THERAPY PROGRAM

Our subsidiary ViralClear Pharmaceuticals, Inc. (ViralClear) has been on a rapid path forward since March 2020. Understanding that COVID-19 created unprecedented challenges in the United States and across the world, we rapidly moved its core asset, merimepodib, forward when the initial pre-clinical data indicated that the molecule may offer a solution for COVID-19 and other viral indications. The early in vitro studies at Galveston National Laboratory at The University of Texas Medical Branch showed merimepodib to have discernible activity against SARS-CoV-2, the virus that causes COVID-19.

In May, the FDA provided clearance of our IND (Investigational New Drug application) to allow dosing of COVID-19 patients in our randomized, double-blind, placebo-controlled Phase 2 study with merimepodib. The human clinical trial commenced in mid-June under the leadership of Dr. Andrew D. Badley, Professor and Chair of the Department of Molecular Medicine and the Enterprise Chair of the COVID-19 Task Force at Mayo Clinic. We initially anticipated a short trial timeline, but like many others in the pharmaceutical industry, we experienced slower enrollment due to declining patient hospitalizations, an increasing number of COVID-19 trials across the country, and fewer patients meeting trial criteria. This all resulted in increased competition for patients and prolonged the original trial timeline. The standard of care for hospitalized COVID-19 patients is rapidly evolving, necessitating amendments to our signal seeking trial. We have now expanded the Phase 2 trial from five to ten centers, aiming to enroll no more than 40 additional patients. Due to these efforts and the resurgence of COVID-19 in more than half of the United States, we believe that enrollment could accelerate.

The Phase 2 trial focuses on two types of hospitalized COVID-19 patients who are not yet intubated, but who do require supplemental oxygen. The NIAID (National Institute of Allergy and Infectious Diseases) 8-point ordinal scale describes them as a score of 3 and 4. In layman's terms, patients with a score of 4 are sick and those with a score of 3 are critically sick. Originally, we did not expect to see any difference between these two groups. However, over the course of the trial, we observed a separation in the blinded results and an emergence of a trend that required us to rethink our approach.

The patients with a score of 4 (sick) require a nasal prong or venting mask to maintain a good oxygenation level. Patients with a score of 3 (critically sick) are in respiratory distress and are very close to being intubated. They require high percentage and high flow oxygen. The blinded results to date have shown that all patients with a score of 4 (sick) did well. Some of these patients were discharged from the hospital quickly and others more slowly; none relapsed. Our researchers did not feel further investigation of the patients with a NIAID score of 4 was warranted at this time.

The data from the trial is still blinded, and trial participants received remdesivir with either merimepodib or placebo. The blinded responses of the patients with a NIAID score of 3 (critically sick) differed. Some of these

critically sick patients did not improve, others slowly responded and were discharged, and others rapidly improved and left the hospital before completing ten days of therapy with study medication. Based on advice from a variety of experts and on the clinical team's judgement from conducting previous signal seeking trials, a decision was made to increase the number of patients with a NIAID score of 3 by up to 40 (not exceeding a total number of patients in the trial of 80). At the time of this letter, more than 40 patients have been enrolled and randomized in the Phase 2 trial.

We expect that if a signal is seen, this expanded study can provide sufficient data to design a pivotal Phase 3 trial for submission to the FDA. Going forward with such a study for COVID-19, if successful, could represent a significant advancement in the value proposition of ViralClear in its contribution toward the development of a pharmaceutical solution for COVID-19.

In preparation for moving to a pivotal Phase 3 trial, and potentially working with other partners we expanded our manufacturing capacities, through contract manufacturing organizations, for drug substance and product.

We are also cognizant of the various options available to drug and vaccine developers today, including emergency use authorization (EUA) and sources of non-dilutive funding to advance promising programs like ours. We are considering both and are very familiar with the process for attaining them. For EUA, the FDA requires an extensive application, including a well-organized summary of the available scientific evidence regarding safety and effectiveness, risks and benefits, among other considerations. Once we engage the FDA to review the data, the Agency will look with scientific rigor over our data to make sure it stands up to what we've seen.

In terms of non-dilutive funding, we had meaningful exchanges with a variety of parties that include BARDA and Operation Warp Speed. We have also spoken to a number of non-governmental organizations who are funding scientific research and development in this pandemic, including The Bill & Melinda Gates Foundation and the Clinton Foundation. We're working on the assumption that we will be able to receive a meaningful signal and drug activity in Phase 2, which would merit an advance to a pivotal trial. At that point, we would expect to qualify for a variety of non-dilutive funding mechanisms.

In addition to the ongoing Phase 2 trial, ViralClear continues to evaluate combination therapies for COVID-19. In late September, ViralClear announced that it had established an agreement with Sorrento Therapeutics {NASDAQ:SRNE] to test merimepodib with Sorrento's STI-1499 neutralizing antibody candidate. Many of you may know that Dr. Anthony Fauci has publicly stated that monoclonal antibodies that stop the virus from spreading in the body are among the treatments that might be helpful before a vaccine is ready – a so-called "bridge" to a vaccine. As such, we are optimistic that this combination approach has the potential to succeed. The newly initiated preclinical evaluation will look for synergy between the Sorrento monoclonal antibody and merimepodib in an animal model of COVID-19. We will be evaluating whether merimepodib can reduce the amount of antibody needed to affect COVID-19. Monoclonal antibody production is costly. The potential for an anti-viral like merimepodib to reduce the amount of antibody needed for a therapeutic effect would both lessen the cost of an individual's therapy and increase the numbers of patients who could be treated with any given lot of antibody.

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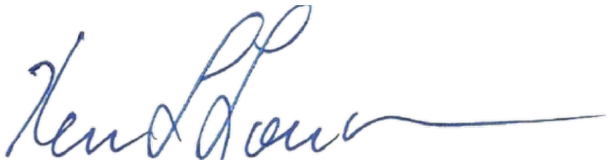
## STRONG CASH POSITION

Our cash provided by financing activities this year totalled $39 million comprised of proceeds from the sale of our common stock of $25.2 million, proceeds from the sale of subsidiary stock of $10.6 million, and proceeds from the exercise of options and warrants of $3.3 million. At the closing of our February offering, we received net proceeds of approximately $9.1 million. In May, ViralClear and the Company entered into a Securities Purchase Agreement for an aggregate consideration of $10.6 million. In June, we entered into a Securities Purchase Agreement resulting in net proceeds to the Company of $16.2 million. With the strongest cash balance in our history, we are well-positioned to execute on our strategic plans and advance BioSig forward for the benefit of all its stakeholders.

## MORE OPPORTUNITIES AHEAD

2020 so far has been an unprecedented year. We are pleased that today we have the strongest cash position in our history, we have successfully deployed the PURE EP™ System at world-renowned medical centers, and we are in a Phase 2 study to find a promising potential anti-viral treatment for COVID-19. We truly believe that our ongoing innovation programs and expanding clinical engagements offer tremendous upside and a compelling value proposition for our investors. We are very excited about the future for BioSig, and we are grateful to have you along for the journey.

With best wishes,



Kenneth L. Londoner, Chairman & CEO

## SAFE HARBOR DISCLOSURE

This Shareholder Letter 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

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Company assumes no obligation to publicly update or revise its forward-looking statements as a result of new information, future events or otherwise.