We are pleased to present the first edition of the Pinnacle newsletter. In this space, you will find surgical tips and answers to frequently asked technical questions. Each issue will also explore new trends at Pinnacle and present descriptions of upcoming product releases. We look forward to hearing from you. Please contact us with any comments/suggestions concerning this newsletter, current products or future products.

Donna A. Johnson
CEO

NEW PRODUCTS

Lactate Biosensor

For recording real-time changes in lactate concentration in the CNS.

In vitro and in vivo lactate biosensor data

COMING SOON

Wireless EEG/EMG/BIO

- 2 EEG Channels
- 1 EMG Channel
- 1 Biosensor Channel

We've listened to your requests for more wireless tools, and we are excited to announce the release of our wireless 3-Channel EEG/EMG system for rats!

A staple of Pinnacle’s EEG/EMG systems is the use of a head-mounted amplifier providing exceptionally clean, artifact free waveforms. We've taken this great quality of our tethered systems and combined it with the innovative “Rat Hat” design to create a turn-key wireless 3-Channel EEG/EMG system for rats.

Wireless technology provides the freedom and flexibility for researchers to expand sleep, seizure, and behavioral paradigms beyond the restriction of a tether!

The 8266 wireless amplifier/transmitter is capable of amplifying and digitizing up to three biopotential channels before the data are transmitted to an 8163 basestation. Two 8266s can be paired to a single 8163 basestation, and
**SURGERY TIP**

Here’s a quick tip for improving the cleanliness of your EMG signals:

EMG electrodes inserted directly into the rodent nuchal muscle will provide a much better signal than EMG electrodes which are simply laid on top of the muscle. During surgery, use curved forceps to make a pocket in the rodent nuchal muscle and insert the electrodes straight into the muscle. Apply dental acrylic to secure the wires in place. No additional anchoring is necessary for these EMG electrodes.

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**EMPIRE SPOTLIGHT**

**Chief Science Officer: Peter Petillo, PhD**

We are very excited to introduce Dr. Peter Petillo as Pinnacle’s Chief Science Officer and to feature him as our first spotlighted employee!

Dr. Petillo has a long and very distinguished career in both the academic and biopharmaceutical worlds. As CSO at Pinnacle, Peter is responsible for all chemistry and biology activities in the company.

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**UPCOMING CONFERENCES**

Look for the Pinnacle booth at the following conferences. Please stop by and say hello.

- **Associated Professionals Sleep Society (APSS)**
  - June 11-15
  - Minneapolis, Minnesota
  - Booth #1024
  - (See the Pinnacle News section for more information)

- **College on Problems of Drug Dependence (CPDD)**
  - June 18-23
  - Hollywood, Florida

- **Research Society for Alcoholism**
  - June 25-29
  - Atlanta, Georgia

- **International Brain Research Organization (IBRO)**
  - July 14-18
  - Florence, Italy
  - Booth #48

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**NEW PUBLICATIONS**


overall gain totals over 5,000x from the initial signals. The software displays the data in microvolts.

10.2116/analsci.27.337JOI.


Full Customer Publications List
Pinnacle’s engineers have been hard at work developing new products and improving our old ones, but the biggest news of the new quarter may be the release of our new acquisition software package, Sirenia™. This platform supports the 8100, 8200, and 8400 product lines; in other words, all of Pinnacle's previous software platforms will be consolidated into one, user-friendly package.

This [free software package](#) handles data acquisition, data visualization, basic analysis, and data exportation.

A beta version of this new software will be available this May, with a full release scheduled for July. Pinnacle plans to follow the release of Sirenia with [paid analysis packages](#).

**Oral Presentation at APSS**

Pinnacle's Director of Biomedical Research, Erik Naylor, will give an oral presentation at the Associated Professional Sleep Societies conference in June titled: "Lactate acts as a Primary Energy Source for Neuronal Activity during Waking and REM sleep."

Erik is Pinnacle's in-house sleep expert and helped develop our EEG/EMG recording systems. He used Pinnacle's 8400 combined EEG/EMG/Biosensor system to simultaneously measure lactate changes with EEG/EMG data in order to relate changes in lactate concentration to sleep state.

Those who are attending the [APSS conference](#) in Minneapolis Minnesota can find Erik's abstract (ID #0109) during the "O07: Sleep and Energy Regulation" session on Monday, June 13, from 3:00-5:00 pm. Erik’s presentation is at 3:30 PM. Please visit us at Booth #1024.