DOTY SCIENTIFIC

The Resonator

NMR - MRI Newsletter Fall 2016

Doty Scientific invites interested participants to tour our NMR facility on Tuesday afternoon October 25th.

This activity is planned in coordination with the **Southeastern Regional Meeting of ACS (SERMACS)** in Columbia SC, October 23rd to October 26th, 2016. We will provide lunch, a short presentation, plus a tour of the plant and our NMR Lab. A bus will leave the convention center at 12:00 noon and will return to the convention center at 2:00PM. You are also welcome to drive. There is parking available.

Please sign-up on the SERMACS registration page, or contact us to let us know you are coming. Judy@dotynmr.com

IN THIS ISSUE:

DEAR COLLEAGUE,

We attended the EUROMAR conference in Aarhus Denmark in which we were pleased to participate. We are glad to report that the science, the culture, the food and the city have made the meeting a great success. Our sales manager, Laura Holte attended another successful meeting ISMRM at Singapore in May. Our application scientist Bibhuti Das has been busy developing new techniques and applications in our laboratory which he will be sharing with you in the future. Recently he presented a poster at SMASH in San Diego, US. In July, he and Laura attended the Rocky Mountain Conference in Breckenridge, Colorado.

To our MRI friends, we are reporting some interesting work using our coils. Below we would like to highlight some excellent imaging results that our customers have graciously shared with us. You can also see an introduction to our dual-frequency surface coil, using concentric loops. The full page articles can be found on the Doty Website: www.dotynmr.com Links to individual pages are provided (further below) in the MRI section of this newsletter.

We hope you had a good summer (or winter as the case may be.)

Judy and David Doty

UPCOMING CONFERENCES

FRI **14** Oct 2016 – SUN **16** Oct 2016

SEMRC

Emory University, Atlanta, GA - USA

http://www.physics.emory.edu/SEMRC2016/

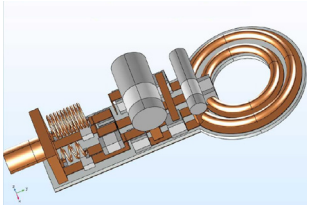
SUN **23** Oct 2016 – WED **26** Oct 2016

SERMACS

Columbia, SC - USA

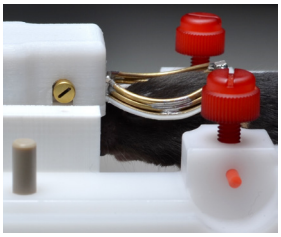
http://sermacs2016.org/

Recent Developments In Imaging Coils:



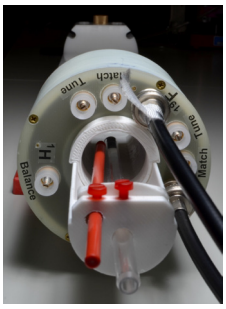
A drawing of the new *Doty* dual -frequency coil.

Doty Scientific is now offering a better dual-frequency surface coil, using concentric loops - with the inner loop tuned high. Permitting 25% higher mean S/N, it's for all sizes and frequencies – $^{1}H/^{13}C$, $^{1}H/^{31}P$, $^{1}H/^{23}Na$, $^{1}H/^{17}O$, etc. http://dotynmr.com/concentric-loops/



The curved surface coil in place above the animal head.

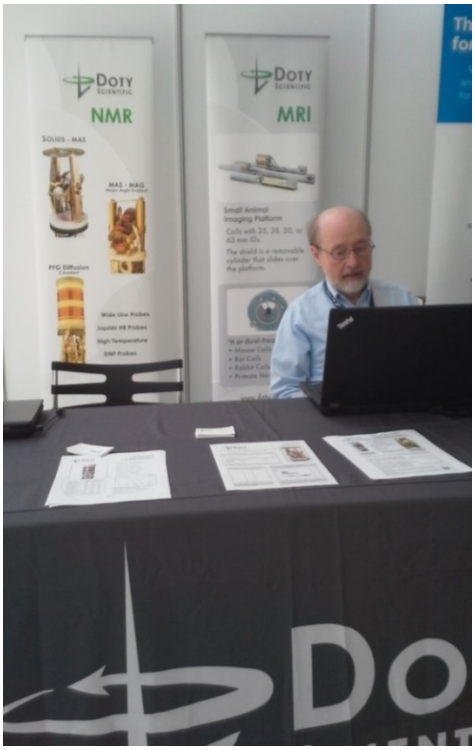
A Doty curved, open-loop, detunable ^{1}H surface coil has been optimized for sensitivity and best filling factor for small animal brain. This is a convenient coil that enables simultaneous integration of fMRI with EEG or SEP. See results at 400 MHz for mouse brain, from the laboratory of Jürgen Reichenbach, Friedrich-Schiller University, Jena, Germany. http://dotynmr.com/curved-open-loop-detunable-1h-surface-coil/



The *Doty* Dual Frequency 32 mm $^{1}H/^{19}F$ Litzcage module for 9.4 T Bruker imager. Shown with a user incorporated animal bed.

Simple-tune pre-clinical and research volume coils are available for dual frequency 1H/19F. Channels can be used for observe/decouple or for interleaved acquisitions. See results from a Doty dual frequency 1H/19F Litzcage coil tuned 400/376 MHz, from the laboratory of Jürgen Reichenbach, Friedrich-Schiller University, Jena, Germany. http://dotynmr.com/dual-frequency-litzcage-volume-coil-for-1h19f/

EUROMAR 2016



David Doty at the Doty Booth

David Doty with Bernhard Blumich (above), and with Warren Warren (below) at the EUROMAR Banquet