

koelblep@nhlbi.nih.gov for more information.

Active Adaptive Detuning Systems To Improve Safety of Interventional Devices

Description of Invention: The invention offered for licensing and commercial development is in the field of Interventional Magnetic Resonance Imaging ("iMRI"). More specifically the invention discloses interventional devices in which the heat generated at the device during the imaging process can be controlled to not exceed acceptable levels.

Active MRI compatible intravascular devices contain RF antenna so that they are visible under MRI. However, these metallic structures may heat up significantly during interventional MRI procedures due to eddy current formation over the conductive transmission lines. The electrical field coupling between interventional devices and RF transmission coils strongly depend on the device position and orientation within the bore and insertion length of the device. Currently, conventional detuning circuit is used to decouple the conductive intravascular device during RF transmission phase of the MRI by activating the circuit with a PIN diode. However, conventional passive techniques do not adapt for each possible orientation or insertion length of the device. The current invention provides for a new active detuning system that adapts its circuit component to limit heating for every possible orientation and insertion length. The system reads out the received current signal value during RF transmission phase and changes the decoupling capacitor value by using varactor and integrated circuit components to reach new resonant condition (very high impedance).

Applications:

- Interventional cardiology
- MRI guided surgery

Advantages: The device may fundamentally enable any "active" MRI catheter device (independent of the orientation and insertion length of the device) to be safe during real-time MRI guided interventional procedures.

Development Status: In development. Prototype is being built.

Inventors: Ozgur Kocaturk (NHLBI).

Patent Status: U.S. Provisional Application No. 61/360,998 filed 07 Jul 2010 (HHS Reference No. E-114-2010/0-US-01)

Relevant Publication: Overall WR, Pauly JM, Stang PP, Scott GC. Ensuring safety of implanted devices under MRI using reversed RF polarization. Magn

Reson Med. 2010 Sep;64(3):823-833. [PubMed: 20593374]

Licensing Status: Available for licensing.

Licensing Contact:

- Uri Reichman, PhD, MBA; 301-435-4616; UR7a@nih.gov.
- Michael Shmilovich, Esq.; 301-435-5019; ShmilovichM@mail.nih.gov.

Collaborative Research Opportunity: The National Heart, Lung, and Blood Institute is seeking statements of capability or interest from parties interested in collaborative research to further develop, evaluate, or commercialize this technology. Please contact Peg Koelble at koelblep@nhlbi.nih.gov for more information.

Dated: March 4, 2011.

Richard U. Rodriguez,

Director, Division of Technology Development and Transfer, Office of Technology Transfer, National Institutes of Health.

[FR Doc. 2011-5511 Filed 3-9-11; 8:45 am]

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DEPARTMENT OF HEALTH AND HUMAN SERVICES

National Institutes of Health

National Institute of Allergy and Infectious Diseases; Notice of Closed Meeting

Pursuant to section 10(d) of the Federal Advisory Committee Act, as amended (5 U.S.C. App.), notice is hereby given of the following meeting.

The meeting will be closed to the public in accordance with the provisions set forth in sections 552b(c)(4) and 552b(c)(6), Title 5 U.S.C., as amended. The grant applications and the discussions could disclose confidential trade secrets or commercial property such as patentable material, and personal information concerning individuals associated with the grant applications, the disclosure of which would constitute a clearly unwarranted invasion of personal privacy.

Name of Committee: National Institute of Allergy and Infectious Diseases Special Emphasis Panel; Mouse Models of Host Responses.

Date: April 5, 2011.

Time: 1 p.m. to 5 p.m.

Agenda: To review and evaluate grant applications.

Place: National Institutes of Health, 6700B Rockledge Drive, Bethesda, MD 20817.

Contact Person: Brandt Randall Burgess, PhD, Scientific Review Officer, Scientific Review Program, Division of Extramural Activities, DHHS/NIH/NIAID, 6700B Rockledge Drive, MSC 7616, Bethesda, MD 20892, 301-451-2584, bburgess@niaid.nih.gov.

(Catalogue of Federal Domestic Assistance Program Nos. 93.855, Allergy, Immunology, and Transplantation Research; 93.856, Microbiology and Infectious Diseases Research, National Institutes of Health, HHS)

Dated: March 4, 2011.

Jennifer S. Spaeth,

Director, Office of Federal Advisory Committee Policy.

[FR Doc. 2011-5505 Filed 3-9-11; 8:45 am]

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DEPARTMENT OF HEALTH AND HUMAN SERVICES

National Institutes of Health

Center for Scientific Review; Notice of Closed Meetings

Pursuant to section 10(d) of the Federal Advisory Committee Act, as amended (5 U.S.C. App.), notice is hereby given of the following meetings.

The meetings will be closed to the public in accordance with the provisions set forth in sections 552b(c)(4) and 552b(c)(6), Title 5 U.S.C., as amended. The grant applications and the discussions could disclose confidential trade secrets or commercial property such as patentable material, and personal information concerning individuals associated with the grant applications, the disclosure of which would constitute a clearly unwarranted invasion of personal privacy.

Name of Committee: Center for Scientific Review Special Emphasis Panel; Fellowships: AIDS Predoctoral and Postdoctoral.

Date: March 29, 2011.

Time: 11 a.m. to 7 p.m.

Agenda: To review and evaluate grant applications.

Place: New York Marriott East Side, 525 Lexington Avenue at 49th Street, New York, NY 10017.

Contact Person: Shiv A Prasad, PhD, Scientific Review Officer, Center for Scientific Review, National Institutes of Health, 6701 Rockledge Drive, Room 5220, MSC 7852, Bethesda, MD 20892, 301-443-5779, prasads@csr.nih.gov.

Name of Committee: Center for Scientific Review Special Emphasis Panel; Member Conflict Computational Genetics and Genomics.

Date: March 29, 2011.

Time: 3 p.m. to 5 p.m.

Agenda: To review and evaluate grant applications.

Place: National Institutes of Health, 6701 Rockledge Drive, Bethesda, MD 20892 (Telephone Conference Call).

Contact Person: Malgorzata Klosek, PhD, Scientific Review Officer, Center for Scientific Review, National Institutes of Health, 6701 Rockledge Drive, Room 4188, MSC 7849, Bethesda, MD 20892, (301) 435-2211, klosekm@csr.nih.gov.