

- Pre-clinical.
- In vitro data available.

Inventors: Suzanne U. Emerson, Priyanka Shukla, Hanh T. Nguyen, and Robert H. Purcell (NIAID).

Publication: Shukla P, et al. Cross-species infections of cultured cells by hepatitis E virus and discovery of an infectious virus-host recombinant. *Proc Natl Acad Sci U S A*. 2011 Feb 8;108(6):2438–2443. [PMID 21262830].

Intellectual Property: HHS Reference No. E-074-2011/2—PCT Application PCT/US2012/020830 filed 10 Jan 2012.

Licensing Contact: Kevin W. Chang, Ph.D.; 301-435-5018; changke@mail.nih.gov.

Collaborative Research Opportunity: The National Institute of Allergy and Infectious Diseases is seeking statements of capability or interest from parties interested in collaborative research to further develop, evaluate or commercialize hepatitis E virus vaccines. For collaboration opportunities, please contact Maryann Puglielli, Ph.D., J.D. at 301-451-6863 or maryann.puglielli@nih.gov.

Composite Probes and Use Thereof in Super Resolution Microscopy

Description of Technology: The technology is in the field of fluorescence microscopy. More specifically, the invention describes and claims the compo site probes for super resolution optical techniques using super resolution via transiently activated quenchers (STAQ). The compo site probes include a donor moiety and an acceptor moiety joined by a linker. The acceptor moiety, when excited by incident radiation, is excited to a state which, for example, absorbs in the donor emission region, such that the acceptor moiety in its excited state quenches at least a portion of the donor moiety emission. Other transiently activated quenching mechanisms and moieties could accomplish the same task by reducing donor population. Also disclosed are methods for irradiating a selected region of a target material including the compo site probe, wherein the compo site probe enables improved resolution by point spread function modification.

Potential Commercial Applications:

- Ultrafine imaging for biomolecules, vesicles and organelles, particularly of living biological samples, in biomedical research.
- Potential applications in clinical diagnostics.
- Nanoscopic Lithography—STAQ compo sites could, in principle, control polymerization of photoresist masks to make feature sizes below 20nm.

Competitive Advantages: Improved ultrafine imaging—

- Imaging objects as small as 10 nm.
- Narrow the point spread function.
- STAQ uses less power, making live cell study practical at theoretically high resolution.

Development Stage:

- The invention is fully developed.
- Need to build multicolor palette that can be integrated into a commercial microscope.

- May need to make certain protein chimeras and photoinitiators for validation.

Inventors: Jay R Knutson and Gary L. Griffiths (NHLBI).

Publications:

1. Doose S, et al. Probing polyproline structure and dynamics by photoinduced electron transfer provides evidence for deviations from a regular polyproline type II helix. *Proc Natl Acad Sci USA*. 2007 Oct 30;104(44):17400–5. [PMID 17956989]
2. Schuler B, et al. Polyproline and the “spectroscopic ruler” revisited with single-molecule fluorescence. *Proc Natl Acad Sci USA*. 2005 Feb 22;102(8):2754–9. [PMID 15699337]
3. Best RB, et al. Effect of flexibility and cis residues in single-molecule FRET studies of polyproline. *Proc Natl Acad Sci USA*. 2007 Nov 27;104(48):18964–9. [PMID 18029448]
4. Sahoo H, et al. A 10–Å spectroscopic ruler applied to short polyprolines. *J Am Chem Soc*. 2007 Aug 8;129(31):9762–72. [PMID 17629273]
5. Li L, et al. Achieving lambda/20 resolution by one-color initiation and deactivation of polymerization. *Science*. 2009 May 15;324(5929):892–3. [PMID 19359543]
6. Hell SW. Far-field optical nanoscopy. *Science*. 2007 May 25;316(5828):1153–8. [PMID 19525330]
7. Masia F, et al. Resonant four-wave mixing of gold nanoparticles for three-dimensional cell microscopy. *Opt Lett*. 2009 Jun 15;34(12):1816–8. [PMID 19529713]
8. Schmidt R, et al. Mitochondrial cristae revealed with focused light. *Nano Lett*. 2009 Jun;9(6):2508–10. [PMID 19459703]

Intellectual Property: HHS Reference No. E-253-2009/0—U.S. Patent Application No. 13/519,737 filed 28 Jun 2012

Licensing Contact: Michael A. Shmilovich, Esq., CLP; 301-435-5019; shmilovm@mail.nih.gov

Collaborative Research Opportunity: The National Heart, Lung and Blood Institute, Laboratory of Molecular Biophysics, is also seeking statements of capability or interest from parties interested in collaborative partnerships

to further develop, evaluate, or commercialize this technology. Please contact Brian Bailey, Ph.D. at bbailey@mail.nih.gov for more information.

Dated: March 18, 2013.

Richard U. Rodriguez,

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

[FR Doc. 2013-06836 Filed 3-25-13; 8:45 am]

BILLING CODE 4140-01-P

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 contract proposals and the discussions could disclose confidential trade secrets or commercial property such as patentable material, and personal information concerning individuals associated with the contract proposals, 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; Operation of a Facility for Testing Malaria Vaccine in Human Subjects.

Date: April 19, 2013.

Time: 11:30 a.m. to 5:00 p.m.

Agenda: To review and evaluate contract proposals.

Place: National Institutes of Health, 6700B Rockledge Drive, Bethesda, MD 20817, (Telephone Conference Call).

Contact Person: Jay R. Radke, Ph.D., Scientific Review Officer, Scientific Review Program, Division of Extramural Activities, National Institutes of Health/NIAID, 6700B Rockledge Drive, MSC 7616, Bethesda, MD 20892-7616, 301-496-2550, jay.radke@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 20, 2013.

David Clary,

Program Analyst, Office of Federal Advisory Committee Policy.

[FR Doc. 2013-06803 Filed 3-25-13; 8:45 am]

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