

taper ensures higher damage threshold for the delivery waveguide in comparison to the conventional lens laser-to-fiber coupling. To improve the high-peak-power delivery capability of the proposed allow-hollow-waveguide DPIV illumination system, instead of a conventional solid-core fiber link, we have used a cyclic olefin polymer (COP)-coated hollow glass waveguide which is designed to minimize the waveguide attenuation losses at a typical DPIV laser wavelength of 532-nm. This waveguide provides a significantly higher laser power delivery capability and higher damage threshold. The all-hollow-waveguide DPIV laser delivery system offers essential advanced features over conventional bulk-optics-based delivery techniques in terms of formatting thin (0.5–1.0 mm), wide (10 mm or wider) and uniform laser illumination sheet; high-peak-power laser delivery without damaging effects (> 1 GW/cm<sup>2</sup>), flexibility, miniaturization, simplified alignment, immunity to external influence (including vibrations and angular laser beam drift), and safe and confined laser delivery.

#### Applications

2. Optics; Particle imaging; Velocimetry.

#### Market

4. Illumination, high peak laser powered delivery.

#### Inventors

6. Ilko K. Ilev, Ronald A. Robinson, Ronald W. Waynant (FDA).

#### Publications

1. IK Ilev et al., "Grazing-Incidence-Based Hollow Taper for Infrared Laser-to-Fiber Coupling," *Applied Physics Letters*, Vol. 74, 1999, pp. 2921–2923.

2. IK Ilev et al., "Uncoated Hollow Taper as a Single Optical Funnel for Laser Delivery," *Review of Scientific Instruments*, Vol. 70, 1999, pp. 3840–3843.

3. IK Ilev et al., "Ultraviolet Laser Delivery Using an Uncoated Hollow Taper," *IEEE Journal of Quantum Electronics*, Vol. 36, 2000, pp. 944–948.

4. IK Ilev et al., "Attenuation Measurement of Infrared Optical Fibers Using a Hollow-Taper-Based Coupling Method," *Applied Optics*, Vol. 39, 2000, pp. 3192–3196.

5. RA Robinson et al., "Design and Optimization of a Flexible High-Peak Power Laser-to-Fiber Coupled Illumination System Used in Digital Particle Image Velocimetry," *Review of Scientific Instruments*, Vol. 75, 2004, pp. 4856–4862.

#### Patent Status

8. U.S. Provisional Application No. 60/730,866 filed 28 Oct 2005 (HHS Reference No. AE-015-2006/0-US-01).

#### Licensing Status

10. Available for non-exclusive or exclusive licensing.

#### Licensing Contact

Michael A. Shmilovich, Esq.; 301/435-5019. [shmilovm@mail.nih.gov](mailto:shmilovm@mail.nih.gov). <<mailto:shmilovm@mail.nih.gov>>

#### Collaborative Research Opportunity

The Food and Drug Administration's Center for Devices and Radiological Health is seeking statements of capability or interest from parties interested in collaborative research to further develop, evaluate, or commercialize this technology. Please contact the inventors at 301/827-4685 for more information.

Dated: July 28, 2006.

#### Steven M. Ferguson,

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

[FR Doc. 06-6873 Filed 8-11-06; 8:45 am]

**BILLING CODE 4140-01-M**

## DEPARTMENT OF HEALTH AND HUMAN SERVICES

### National Institutes of Health

#### Government-Owned Inventions; Availability for Licensing

**AGENCY:** National Institutes of Health, Public Health Service, HHS.

**ACTION:** Notice.

**SUMMARY:** The inventions listed below are owned by an agency of the U.S. Government and are available for licensing in the U.S. in accordance with 35 U.S.C. 207 to achieve expeditious commercialization of results of federally-funded research and development. Foreign patent applications are filed on selected inventions to extend market coverage for companies and may also be available for licensing.

**ADDRESSES:** Licensing information and copies of the U.S. patent applications listed below may be obtained by writing to the indicated licensing contact at the Office of Technology Transfer, National Institutes of Health, 6011 Executive Boulevard, Suite 325, Rockville, Maryland 20852-3804; telephone: 301/496-7057; fax: 301/402-0220. A signed Confidential Disclosure Agreement will be required to receive copies of the patent applications.

### Model Th1 Clone Producing IFN-gamma and IL-2

#### Description of Technology

Available for licensing is the A.E7 T cell clone, a model Th1 clone described in Matis et al., *J Immunol.* 1983 Apr 130(4):1527–1535 [*PubMed abs*] and *J Immunol.* 1983 Sept 131(3):1049–1055 [*PubMed abs*]. This clone has been further utilized as a model for studying T cell clonal anergy.

#### Potential Applications of Technology

2. Model Th1 clone capable of making IFN-gamma and IL-2

4. Model T cell clone for studying T cell clonal anergy

#### Inventors

Ronald H. Schwartz et al. (NIAID).  
Louis A. Matis (NIAID).  
Dan L. Longo (NCI).  
Toby T. Hecht (NCI).

#### Patent Status

HHS Reference No. E-214-2006/0—Research Tool.

#### Licensing Status

Available for non-exclusive licensing.

#### Licensing Contact

Susan Ano, Ph.D.; Phone: (301) 435-5515; Email: [anos@mail.nih.gov](mailto:anos@mail.nih.gov).

Dated: July 31, 2006.

#### Steven M. Ferguson,

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

[FR Doc. 06-6874 Filed 8-11-06; 8:45 am]

**BILLING CODE 4140-01-M**

## DEPARTMENT OF HEALTH AND HUMAN SERVICES

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### Complement Regulatory Gene Variants as Predictive Tests for Age-related Macular Degeneration (AMD)

#### *Description of Technology*

Age-related macular degeneration (AMD) is complex multigenic disorder that affects the central region of the retina (macula) and is the leading cause of legal blindness in developed countries. Age, lifestyle (e.g., smoking, diet) and genetic predisposition are major risk factors for AMD and 1.75 million adults over 40 are affected by advanced AMD in the United States with a further 7 million considered to be at risk (defined by the presence of large retinal deposits or drusen, which are the hallmark of this disease). A variety of immune-associated molecules including immunoglobulins, complement components, activators and regulators, etc. are associated with drusen and evidence suggests that AMD, like other age-related diseases such as Alzheimer's disease and atherosclerosis, involves a major inflammatory component. Several disease-susceptibility genes have been identified in family studies of macular degeneration and in patient cohorts by several groups including NIH researchers and their collaborators, and variants in the factor H gene (CFH), a major inhibitor of the alternative complement pathway, have been associated with the risk for developing AMD.

NIH researchers and their collaborators have now extended this work to two other regulatory genes of this pathway, Factor B (BF) and complement component 2 (C2). These genes were screened for genetic variation in two independent cohorts comprised of ~900 AMD cases and ~400 matched controls. Haplotype analyses revealed a significant common risk haplotype (H1) and two protective haplotypes (H7 and H10). Combined analysis of the C2/BF haplotypes and CFH variants shows that variation in the two loci can predict the clinical outcome in 74% of the cases and 56% of the controls (Nature Genetics (2006) 38, 458). This suggests that these variants can be used as predictive genetic tests in combination with other potential risk factors.

Available for licensing are methods for identifying a subject at increased risk for developing AMD by determining the presence of protective genotypes at either the BF/C2 locus and at the CFH locus. Microarrays and kits are also provided. The complex and polygenic nature of AMD suggests that the protective and risk haplotypes claimed here can be of great value not only to companies targeting Macular Degeneration but perhaps more broadly to those involved in complement-mediated inflammatory disorders.

#### *Inventors*

Michael Dean (NCI), Bert Gold (NCI) et al.

#### *Patent Status*

U.S. Provisional Patent Application No. 60/772,989, filed 13 February 2006 (HHS Reference No. E-042-2006/0-US-01).

#### *Licensing Status*

Available for non-exclusive or exclusive licensing.

#### *Licensing Contract*

Susan Carson, D.Phil.; 301-435-5020; mail to: [carsonsu@mail.nih.gov](mailto:carsonsu@mail.nih.gov).

#### *Collaborative Research Opportunity*

The NCI Laboratory of Genomic Diversity is seeking statements of capability or interest from parties interested in collaborative research to further develop, evaluate, or commercialize functional or genetic tests on complement genes and proteins. Please contact Kathleen Higinbotham at 301-846-5465 for more information.

Dated: July 28, 2006.

#### **Steven M. Ferguson,**

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

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**BILLING CODE 4140-01-M**

## **DEPARTMENT OF HEALTH AND HUMAN SERVICES**

### **National Institutes of Health**

#### **Government-Owned Inventions; Availability for Licensing**

**AGENCY:** National Institutes of Health, Public Health Service, HHS.

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federally-funded research and development. Foreign patent applications are filed on selected inventions to extend market coverage for companies and may also be available for licensing.

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#### **Licensing Opportunity**

#### *From the National Institutes of Health*

Target-Specific Activatable Optical Probes for In Vivo Imaging

#### *Description of Technology*

Available for licensing and commercial development is an optical imaging method capable of detecting living cancer cells in vivo. The method increases sensitivity and reduces the background signal to extremely low levels. In contrast to conventional fluorescent imaging, the strategy activates the probe after it binds to and is internalized within cancer cells. Using antibodies, reagent-receptor systems, or cytokines to target the agent to the cancer, the agent is internalized by the normal cellular process of endocytosis which in turn, leads to molecular changes within the probe itself; fluorophores are activated only in the living targeted cells.

An activatable fluorophore is one that is normally self-quenched by attachment to a peptide backbone but which can be activated by specific proteases which degrade the peptide resulting in "de-quenching." For example, self-quenching avidin-rhodamine, which has affinity for lectin on cancer cells, is activated after endocytosis and degradation within the lysosome. Cellular internalization of receptor-ligand pairs with subsequent activation of fluorescence via "de-quenching" provides a generalizable and highly sensitive method of detecting cancer microfoci in vivo and has practical implications for assisting surgical and endoscopic procedures.

#### *Application(s)*

2. Optical detection of tumor cells and metastatic nodules
4. Photodynamic treatment of tumors