MEMORANDUM OF UNDERSTANDING (MOU)

Whereas County of Tulare wishes to provide access to excellent cost-effective vision care for its patients and clients with diabetes, and

Whereas the University of California, Berkeley Optometric Eye Center is a recognized provider of excellent vision care and seeks to provide public service to the people of California by conducting a program utilizing telemedicine techniques in screening for diabetic retinopathy, and

Now, therefore, in consideration of the mutual covenants, conditions, and terms hereinafter set forth, and for other good and valuable consideration, the parties hereto agree as follows:

This MEMORANDUM OF UNDERSTANDING (MOU) is entered into this June 1, 2009, by and between the University of California, Berkeley Optometric Eye Center, hereinafter referred to as UCBOEC, and County of Tulare.

EyePACS, as discussed in this MOU, is a platform for clinical communication, which includes a web-based application to retrieve, send, and manipulate data between a database and browser clients. "EyePACS" is a registered trademark. Use of the "EyePACS" name beyond the term of the MOU will require the written approval of Dr. Jorge Cuadros, Associate Professor, University of California, Berkeley. Further, any modifications to the program will also require written approval from Dr. Cuadros.

The purpose of this MOU is to establish a non-exclusive agreement between UCBOEC and County of Tulare. Both parties agree to be collaborative partners in the diabetic retinopathy screening project as described in Exhibit A and agree to fulfill the requirements of the MOU in accordance with the following terms and conditions:

A. Operational Dates:

1. The term of this MOU is effective beginning June 1, 2009, through Dec 31, 2010, unless earlier terminated by either party, without cause, upon thirty (30) days written notice to the other party. In the event of early termination, UCBOEC will remove retinal camera from County of Tulare premises.

B. EyePACS:

1. During the period of this MOU, UCBOEC will provide free of charge to County of Tulare the EyePACS software (as is); staff training for the use of EyePACS; modifications and coding of the software; and development support during the initial installation of the software. During this time, UCBOEC will also provide trouble-shooting, recommendations, and on-site consulting as necessary.

2. County of Tulare will have access and license to use EyePACS; however, any use of EyePACS must acknowledge the program development and support of UCBOEC and the California Telehealth and eHealth Center, and the California HealthCare Foundation.

3. Upgrades to the EyePACS software will be provided free of charge throughout the period of this MOU.

4. During the time in which County of Tulare has access to EyePACS system or any modified version of the EyePACS system, County of Tulare agrees not to sell or distribute any portion of the software.

5. During County of Tulare's use of the EyePACS software, County of Tulare agrees that UCBOEC may have access to eye images and data collected through the EyePACS system. UCBOEC agrees to ensure that the use of eye images and data will be used in strict compliance with HIPAA regulations.

C. Equipment/Location:

1. UCBOEC will place one Canon DGi digital fundus camera (or equivalent) at the County of Tulare site, in an appropriate location therein.

2. County of Tulare will fulfill all requirements as specified in Exhibit B, "Minimum Technical Requirements for Implementing Diabetic Retinopathy Screening with EyePACS."

3. During the period of this MOU, County of Tulare will be responsible for ensuring the effective use of the camera. Effective use of the camera shall be demonstrated by the following:

   - A sufficient volume of patients benefiting from the use of the camera (approximately 1,000 screens per year or as negotiated by UCBOEC and County of Tulare); and

   - A primarily indigent patient population benefiting from the use of the camera.

   Failure to meet the terms of effective use of the camera to the satisfaction of UCBOEC will be grounds for termination of this agreement and removal of the equipment from County of Tulare's premises.

4. UCBOEC will be responsible for maintaining the equipment within County of Tulare.

5. County of Tulare will be responsible for securing and insuring the camera, and will be liable for any damage or loss while the equipment is installed at County of Tulare.

D. Personnel:

1. County of Tulare staff will be trained and certified by UCBEOC to capture and transmit images, and to download reports and make necessary referrals to specialists.

2. County of Tulare shall assign sufficient staff to process retinopathy screening cases (as trained by UCBEOC), which may equal up to 20 patients per week in each participating clinic.

E. Payment for Services:

1. Retinopathy screening performed at County of Tulare and interpreted by UCBOEC may be billed by County of Tulare to patients or third-party providers. UCBOEC will collect a fee of $15 per patient from County of Tulare for reading, interpreting, and reporting on the diabetic retinopathy screening. County of Tulare is not required to utilize UCBOEC for reading and interpretation services.

2. Alternatively, County of Tulare may elect to receive a volume discount for retinal readings performed by UCBOEC. To do so, County of Tulare shall remit to UCBEOC a yearly fee of $12,000 as compensation for all retinal readings performed by UCBOEC up to a maximum of 1,000 retinal screenings per year. Additional readings beyond 1,000 in a year will be billed at $12 each. If this option is selected, then a monthly installment of $1,000 will be paid by County of Tulare and collected by UCBOEC. A bill will be sent for any readings beyond 1,000. In the event of early termination of this agreement, the volume discount will not apply and all retinal readings performed during the term of this agreement will be charged and payment by County of Tulare due at $15 per reading.

F. Notice:

1. Any notice required or permitted hereunder this MOU shall be written and delivered to:

County of Tulare
5957 S. Mooney Blvd.
Visalia, CA 93277
Attn: Cheryl Smith

University of California, Berkeley
Optometric Eye Center, Minor Hall
Berkeley, CA 94720
Attn: Jorge Cuadros, O.D. Ph.D.

THE PARTIES, having read and considered the above provisions, indicate their agreement by their authorized signatures below.

COUNTY OF TULARE

Date:_____   By_____
                                    Chairman, Board of Supervisors

ATTEST: JEAN ROUSSEAU
County Administrative Officer/Clerk of the Board
of Supervisors of the County of Tulare

By_____
        Deputy Clerk

UC BERKELEY OPTOMETRIC EYE CENTER

Date:_____   By_____
                                    Edward Revelli, O.D., Assoc. Dean for Patient Care
                                    UC Berkeley Optometric Eye Center

Approved as to Form

_____   Date: _1/12/10_____
County Counsel *2009/6/18*

EXHIBIT A

PROJECT DESCRIPTION: EXPANSION OF DIABETES RETINOPATHY SCREENING PROGRAM

Background:

Diabetic retinopathy (DR) is the leading cause of blindness among working age adults, with 24,000 people with diabetes becoming legally blind each year in the U.S. Clinical trials have demonstrated that early detection through annual screening and treatment of diabetic retinopathy can reduce vision loss by 90 percent. Remote assessment of diabetic retinopathy using telemedicine (store and forward technology in which digital images are taken in one setting and sent to a provider in another location to be read) is an accurate and low-cost way to identify changes in retinal images and facilitate appropriate and timely use of specialty care. It also helps ensure patients receive the necessary screening by incorporating it into their primary care visit as opposed to referring the patient to an outside specialist.

UC B erkeley Optometric E ye C enter ha s de veloped EyePACS, a s tore-and-forward clinical communication s ystem t hat ha s b een us ed s uccessfully for DR s creening i n di verse c linical settings. By performing near real-time interpretation of retinal images, clinicians at UC Berkeley specifically trained in diabetic retinopathy detection can provide:

1. technical assistance to support integrating EyePACS and cameras into clinic workflow;
2. detection and referral of patients with sight-threatening DR at the time of their primary care visit;
3. training for primary care physicians and staff in retinal image interpretation; and
4. education for patients about their condition.

Objectives:

The objectives of this project are as follows:

1. Improve access to recommended diabetic retinopathy screening for patients with diabetes and prevent diabetes related vision loss and blindness.
2. Develop a network of self-sustaining DR detection sites in existing primary care clinics and c ommunity s ites t hat pr ovide c are t o unde rserved popul ations i n C alifornia. T his network will be tied via EyePACS to the University of California, Berkeley Optometric Eye Center's distributed network of clinicians.

Ultimately, any C alifornia c ommunity c linic tha t w ishes to provide s tore-and-forward telemedicine s ervices s hould be a ble dr aw on t his ope n-access pr ogram t o create a l ow-cost, effective, and sustainable program.

EXHIBIT B

MINIMUM TECHNICAL REQUIREMENTS FOR IMPLEMENTING DIABETIC RETINOPATHY SCREENING WITH EYEPACS

This following is a list of requirements for community clinics to participate in the UC Berkeley EyePACS diabetic retinopathy screening program.

1. **Fast Internet connectivity:** At least 128 KB/second speed; allow upload of image files to trusted site on the Internet; and allow SSL at 128-bit encryption in Web browser.

2. **Telephone access in the imaging room.** A standard telephone line and telephone at the workstation must be available for service calls, troubleshooting, and patient consults.

3. **Electrical supply.** At least four electrical outlets are required for the imaging devices and computer. Maximum electrical requirement for all devices: 5 amps.

4. **Dark environment.** The room must be able to be darkened so that patient's pupils will dilate. Complete darkness is preferable.

5. **Black and white printer.** A printer for printing retinopathy reports must be connected directly to the imaging computer, connected via the network, or printed off another network computer.

6. **Optional computer.** If the clinic will assign its own computers for the program then it must meet these minimum specifications:
   - CPU: 2 GHz
   - Hard Drive: 40 Gb – 5400 rpm
   - RAM: 512 MB
   - Two standard USB version 2 inputs
   - Video Card: 128 MB vRAM; supports 1152 X 864 resolution in 24-bit color
   - 10 MB/S Network Interface Connection
   - Latest virus protection and operating system updates
   - Monitor: 15" flat screen or flat panel with 60 Hz refresh rate