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Intravitreal Ranibizumab (Lucentis™) with Verteporfin Photodynamic Therapy for Neovascular Age-Related Macular Degeneration: Year One Results

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PURPOSE Lucentis™ (ranibizumab) is a humanized antibody fragment (Fab) that binds to and inactivates all active forms of VEGF. VEGF has been implicated in the pathogenesis of neovascular age-related macular degeneration (AMD).

The primary objectives of the FOCUS study were to investigate the safety and tolerability of ranibizumab when administered as multiple intravitreal injections in combination with verteporfin photodynamic therapy (PDT), and to assess the effect of ranibizumab on visual loss from baseline.

METHODS This was a Phase I/II, multicenter, single-masked, sham injection-controlled study of intravitreally administered ranibizumab in subjects with primary or recurrent subfoveal choroidal neovascularization (CNV) secondary to AMD with investigator-determined predominantly classic lesions. From April 2003 to January 2004, participants were randomized in a 2:1 ratio to receive either 0.5 mg of ranibizumab or a sham injection monthly for 2 years in combination with PDT. Subjects received verteporfin PDT 7 days prior to the first administration of study drug (ranibizumab or sham) and every 3 months thereafter if deemed necessary by the investigator and in accordance with product labeling. Study drug was held if a PDT treatment was administered within 1 week prior to scheduled injection.

The primary safety and tolerability outcome measures are the incidence and severity of adverse events and the incidence of positive serum antibodies to ranibizumab. The primary efficacy endpoint is the proportion of subjects who at 12 months have lost <15 letters from baseline in best corrected visual acuity score assessed using an ETDRS chart.

RESULTS Of 162 patients randomized (106 to ranibizumab, 56 to sham injection), 76 (46.9%) were men and 86 (53.1%) were women; 99% were Caucasian. Mean (SD) age was 74.1 (7.8) years (range, 50-93 years). At the time of abstract submission, 1-year results were not available, but will be presented at this meeting.

CONCLUSION The safety, tolerability, and efficacy of ranibizumab administered as monthly intravitreal injections for 1 year in subjects in combination with

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OCT Imaging of Neovascular AMD Patients Treated with Ranibizumab (Lucentis™): The PrONTO Study

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PURPOSE Ranibizumab (Lucentis™) is an anti-VEGF antibody fragment that binds and inhibits all known biologically active isoforms and proteolytic fragments of vascular endothelial growth factor (VEGF). In Phase I/II studies, monthly intravitreal injections of ranibizumab were well tolerated and associated with improved visual acuity (VA), decreased optical coherence tomography (OCT) central retinal thickness (CRT) measurements, and diminished or absent fluorescein angiographic leakage from choroidal neovascularization (CNV) in patients with age-related macular degeneration (AMD). Phase III trials with ranibizumab are currently underway. To determine the time-course and duration for the decrease in CRT and the improvement in VA following intravitreal injections of ranibizumab, we are performing a single-site, FDA-reviewed, investigator sponsored trial at the Bascom Palmer Eye Institute known as the Prospective OCT Imaging of Patients with Neovascular AMD Treated with Intra-Ocular Lucentis (PrONTO) Study.

METHODS 40 AMD patients with subfoveal CNV and OCT CRT measurements of at least 300 microns are being enrolled in this prospective, open-label, uncontrolled clinical study. Each patient receives 3 consecutive monthly injections of ranibizumab (500 µg) in their study eye with subsequent injections performed only if an increase in OCT CRT is observed. During the first 2 months, OCT CRT measurements are obtained at baseline and on post-injection days 1, 2, 4, 7, 14, and 30. EDTRS visual acuities are obtained at baseline and on post-injection days 14, 30, 45, 60, and 90.