mesoblast
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SUPPL

20 July 2008

Office of International Corporate Finance
US Securities and Exchange Commission
100 F Street, N.E.
WASHINGTON DC 20549
USA
Mailstop: Room 3628

Dear Sirs

Re: Submission by Mesoblast Limited under Rule 12g3-2(b) - SEC File Number 82-34929

We enclose copies of all documents lodged with the Australian Securities Commission on behalf of Mesoblast Limited for filing with the US Securities & Exchange Commisson.

These lodgements date from 23 May 2008 to the present date 20 July 2008.

Yours sincerely

Kevin Hollingsworth
Company Secretary

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ALLOGENEIC STEM CELLS EFFECTIVELY TREAT EYE DISEASES

Cells highly synergistic with anti-VEGF therapy; combination prevents blood vessel leakage and retinal detachment

KEY POINTS:

- Trial outcomes identify diabetic retinopathy and age-related macular degeneration, the leading causes of blindness in the developed world, as major new market opportunities for the Company's proprietary stem cell technology
- Single injection of proprietary allogeneic, or "off-the-shelf", adult stem cells were safe and highly synergistic with the United States Food and Drug Administration-approved anti-VEGF agent Lucentis for treatment of leaky blood vessels in the eyes of non-human primates
- Combining a single injection of the Company's stem cells with Lucentis resulted in a significantly superior outcome to Lucentis alone in preventing severe blood vessel leakage and preventing disease recurrence
- Combining a single injection of the Company's stem cells with Lucentis prevented the formation of new blood vessels and protected against retinal detachment
- Trial results form the basis of an IND submission to commence a Phase 2 clinical trial of the Company's stem cell therapy for eye diseases.

Melbourne, Australia; 10 July 2008: Australia's regenerative medicine company, Mesoblast Limited (ASX:MSB; USOTC: MBLTY), today announced highly significant preclinical trial results of the adult stem cell technology platform for the treatment of eye diseases associated with abnormal blood vessels. These diseases include diabetic retinopathy and age-related macular degeneration (AMD), the leading causes of blindness in the western world.

The current standard-of-care therapy for AMD is repeated eye injections using an anti-VEGF agent. Two of these agents, marketed under the names Lucentis and Macugen, have been approved by global regulatory bodies and distributed by Genentech, Novartis, and Pfizer. These agents are injected into the eye every 4-6 weeks on an ongoing basis as maintenance therapy to prevent reversal in visual improvement.

The results of the trial in 42 non-human primates, conducted in conjunction with Mesoblast's New York-based sister company Angioblast Systems Inc., indicate that combining an anti-VEGF agent with the company's proprietary stem cells may lead to improved vision and a reduction in the frequency of subsequent anti-VEGF injections into the eyes.

In the United States alone, there are about 1.5 million people suffering from the form of AMD associated with abnormal blood vessels, and over 200,000 new cases per year. An additional 500,000 diabetics suffer from macular oedema caused by abnormally leaky blood vessels, making these disease states a major market opportunity.

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Appendix

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The trial results showed that each of the three escalating cell doses used were as effective as Lucentis in this model of blood vessel leakage after laser-induced damage, without any significant cell-related adverse events. However, the combination of Lucentis with a single injection of the company's stem cells was significantly superior in outcome to Lucentis alone in preventing development of severe blood vessel leakage, preventing progression of mild to severe vessel leakage, preventing disease recurrence, and preventing retinal detachment.

In comparison to Lucentis alone, combining the drug with a single injection of allogeneic stem cells reduced the mean blood vessel leakage score by approximately 25% by the trial's end at day 42 ($p=0.03$), **figure 1**. This was due to approximately a 50-90% reduction in the number of high-grade leaky vessels throughout the entire trial period and approximately a 29-42% increase in the number of low-grade leaky vessels, suggesting that the combination therapy prevented progression of low-grade to high-grade leaky vessels.

While Lucentis alone prevented the most severe (grade 4) vessel leakage compared with controls at day 15, after this timepoint disease recurrence was seen and sole Lucentis therapy was ineffective relative to controls beyond day 15, **figure 2**. In contrast, adding a single injection of allogeneic stem cells completely eliminated the most severe (grade 4) leakiness throughout the entire 42-day trial period, **figure 2,** indicating that the combination prevented disease recurrence.

Thirdly, adding a single injection of allogeneic stem cells to Lucentis significantly reduced the formation of abnormal new blood vessels. As shown in **figure 3,** the mean severity score for formation of a fibrovascular membrane was over two-fold higher in Lucentis treated eyes than in eyes treated with the combination of Lucentis and allogeneic MPC. ($p=0.001$).

Finally, in comparison to Lucentis alone the incidence of retinal detachment throughout the trial was reduced by approximately 85% when a single injection of the allogeneic stem cells was added. Whereas retinal detachment occurred in 37/72 (51%) laser-treated eyes without combination therapy, it was seen in only 1/12 (9%) eyes receiving the combination therapy ($p<0.01$), **figure 4**.

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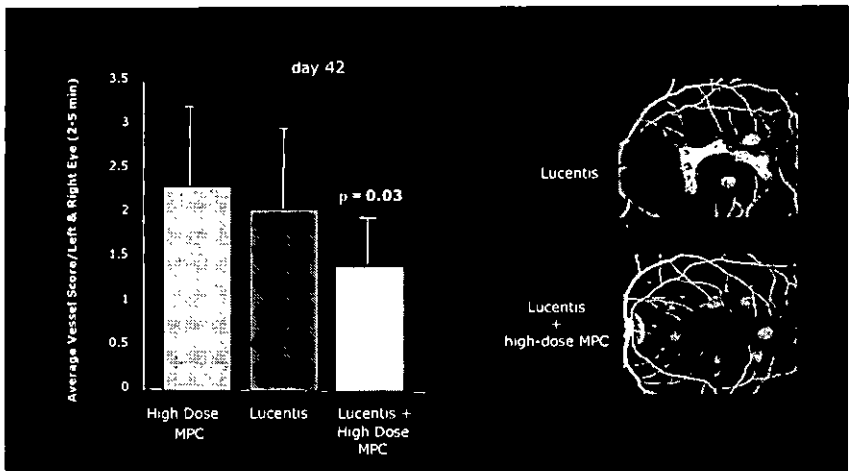

Figure 1. Allogeneic MPC are synergistic with anti-VEGF for preventing vessel leakage

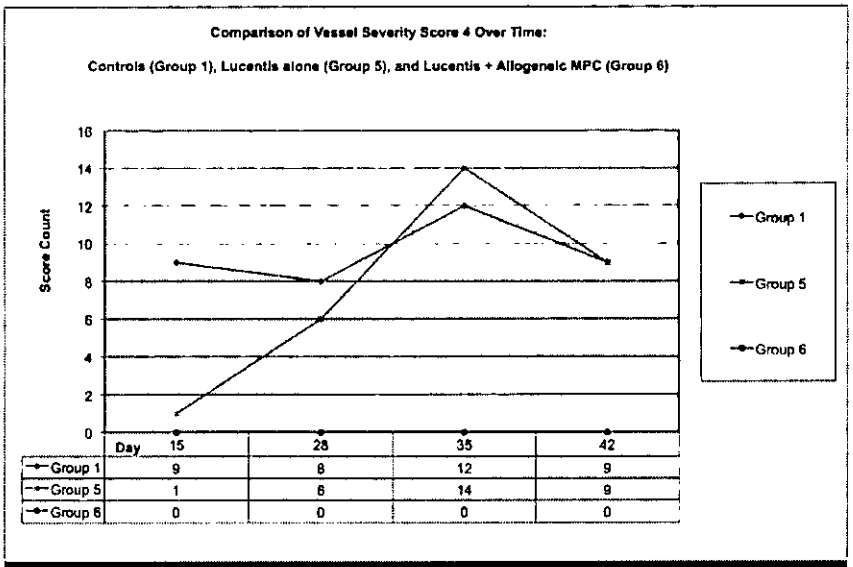

Figure 2.Combination of allogeneic MPC + anti-VEGF prevents Stage 4 disease relapse seen with anti-VEGF alone after day 15.

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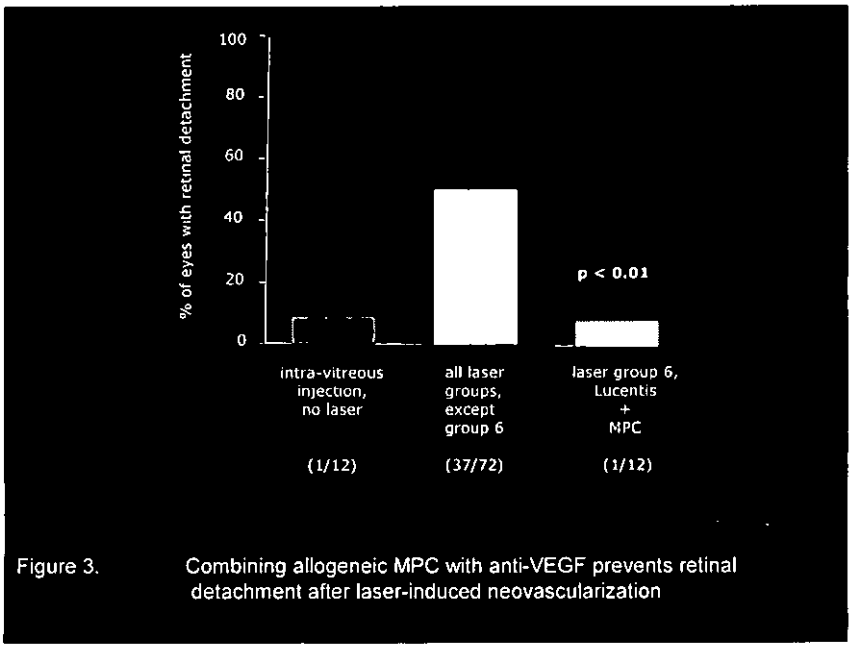

Figure 3. Combining allogeneic MPC with anti-VEGF prevents retinal detachment after laser-induced neovascularization

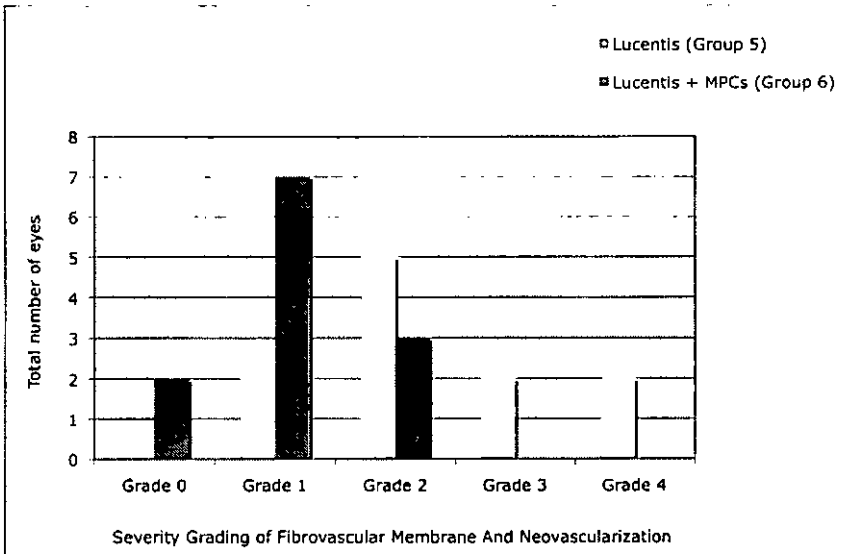

Figure 4. Combining allogeneic MPC with Lucentis reduces abnormal new blood vessel formation compared with Lucentis alone

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UNITED STATES FDA CLEARS PHASE 2 TRIAL FOR CONGESTIVE HEART FAILURE
Major New Market Opportunity

Key Points:

- FDA clears Phase 2 clinical trial for congestive heart failure
- Third IND submission cleared for platform stem cell technology
- Multiple centres in US to participate
- Major milestone hit on time and within budget

Melbourne, Australia; 5 June 2008: Australia's regenerative medicine company, Mesoblast Limited (ASX:MSB;USOTC:MBLTY), today announced that the United States Food and Drug Administration (US FDA) had cleared an Investigational New Drug (IND) submission by its US-based sister company, Angioblast Systems Inc., to commence a Phase 2 trial of the stem cell platform technology for treating patients with congestive heart failure.

The trial will enrol 60 patients with heart failure at multiple major centres across the US. Fifteen patients will serve as controls and 45 will receive one of three doses of the company's patented allogeneic (donor unrelated or "off-the-shelf") adult stem cells. Study endpoints will include measurement of heart muscle function and improvement in heart failure symptoms at six and 12 months.

In this trial, the company's patented allogeneic cells will be injected into damaged heart muscle by cardiac catheter, in a similar way to the company's ongoing Phase 2 trial in patients with heart attacks. The cardiac catheter technology for this trial will be provided through an ongoing collaboration with the Johnson and Johnson companies Cordis Corporation and Biosense Webster.

In parallel with this Phase 2 trial, Angioblast will continue its ongoing preclinical collaboration with Abbott, a major global broad-based health care company, to jointly develop a heart failure product. The company expects that the results of both the Phase 2 clinical trial and its preclinical collaboration will support the subsequent filing of a pivotal, Phase 2b/3 clinical trial.

In a recent Australian pilot trial, injection of the company's autologous cells (patients' own) resulted in improvement in heart muscle function and reduced symptoms of both heart failure and severe angina. Additionally, the company's allogeneic cells have been shown to improve heart muscle function and reverse established heart failure in preclinical trials.

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"Obtaining rapid FDA clearance to begin a Phase 2 trial of our allogeneic cells in patients with heart failure confirms the robustness of the clinical and preclinical results of the platform adult stem cell technology", said company founder Professor Silviu Itescu.

"Treatment of heart failure is a major unmet clinical need and a huge commercial opportunity for us. If our initial clinical and preclinical results are mirrored in this Phase 2 trial, we will have a unique and highly effective product for this massive, and growing, market," Professor Itescu added.

About Congestive Heart Failure
Heart failure is a leading cause of death in the developed world, and is estimated to affect over 11 million people worldwide. In the United States alone, nearly 5 million patients suffer from heart failure, making this condition a major cause of total hospitalisations, chronic disability, and mortality. Each year in the United States 550,000 new cases are diagnosed and some 300,000 patients die because of the progressive condition.

Heart failure results from the progressive deterioration of the pumping function of the heart, leading to its inability to pump sufficient blood to the body's tissues, organs and limbs. The majority of heart failure patients have underlying cardiovascular disorders that are often the precursors of their condition. The most common of these are atherosclerosis, myocardial infarction, hypertension, cardiomyopathy and arrhythmia.

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The results of the trial in 42 non-human primates, conducted in conjunction with Mesoblast's New York-based sister company Angioblast Systems Inc., indicate that combining an anti-VEGF agent with the company's proprietary stem cells may lead to improved vision and a reduction in the frequency of subsequent anti-VEGF injections into the eyes.

In the United States alone, there are about 1.5 million people suffering from the form of AMD associated with abnormal blood vessels, and over 200,000 new cases per year. An additional 500,000 diabetics suffer from macular oedema caused by abnormally leaky blood vessels, making these disease states a major market opportunity.

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The results of the preclinical trial showed that a single intra-ocular injection of the Company's proprietary allogeneic, or "off-the-shelf", adult stem cells was as effective at reducing blood vessel leakage after laser-induced damage as Genentech's Lucentis, the most effective FDA-approved anti-VEGF agent in use. The trial showed similar effectiveness with each of the three escalating cell doses used, without any significant cell-related adverse events.

More importantly, the trial showed that combining Lucentis with a single injection of the company's stem cells resulted in a highly synergistic, and significantly superior, outcome to Lucentis alone in preventing development of severe blood vessel leakage, preventing disease recurrence, reducing formation of new blood vessels and preventing retinal detachment.

"These are extremely exciting results which raise the prospect that our cells may be able to improve vision in conditions associated with abnormal blood vessels in the eye, while at the same time enabling physicians to reduce the frequency or dosage requirements of intra-ocular injections of anti-VEGF agents such as Lucentis," said Company founder and director, Professor Silviu Itescu.

The results of this primate study, together with earlier preclinical results, will form the basis of an Investigational New Drug (IND) submission to the FDA to commence a Phase 2 clinical trial of the Company's allogeneic stem cells in combination with an anti-VEGF agent, with the objective to show improvement in vision, long-term disease remission, and reduction in frequency of intra-ocular anti-VEGF maintenance injections.

Angioblast intends to form a strategic partnership with a major global health care company in order to rapidly commercialise its stem cell product for the treatment of eye diseases caused by abnormal blood vessels, such as diabetic retinopathy and AMD.

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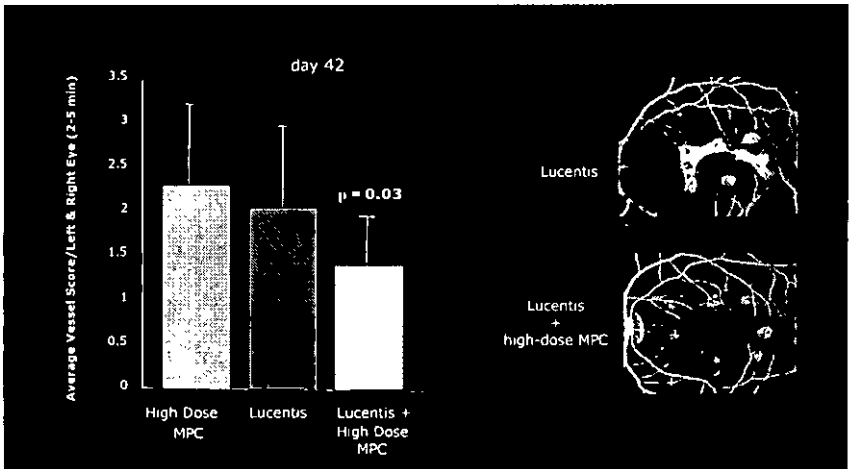
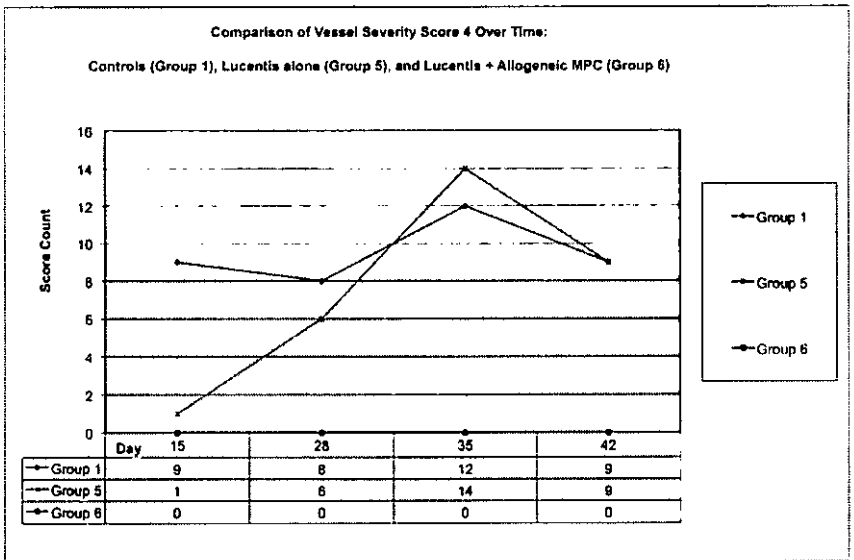


Figure 1. Allogeneic MPC are synergistic with anti-VEGF for preventing vessel leakage.



Day	15	28	35	42
Group 1	9	8	12	9
Group 5	1	6	14	9
Group 6	0	0	0	0

Figure 2.Combination of allogeneic MPC + anti-VEGF prevents Stage 4 disease relapse seen with anti-VEGF alone after day 15.

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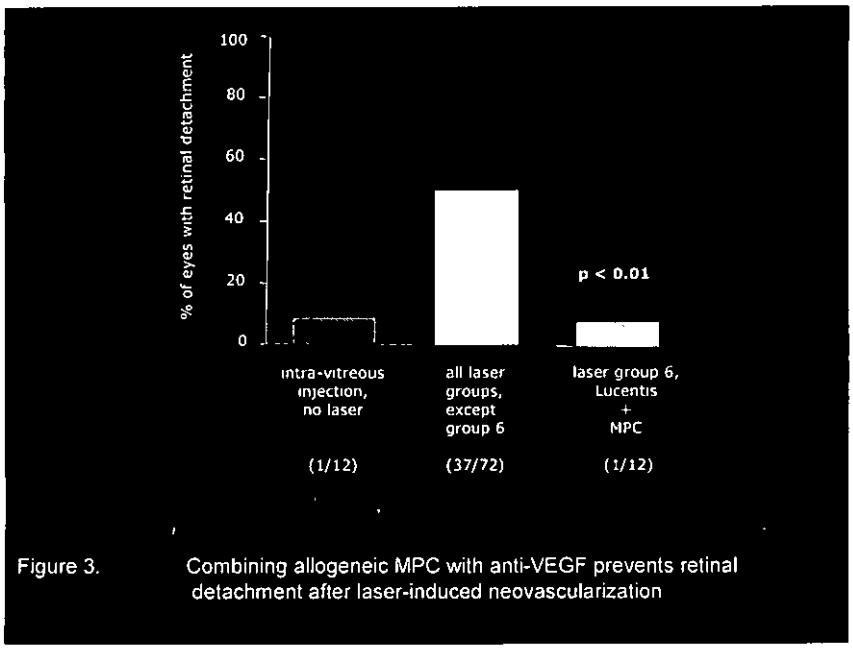
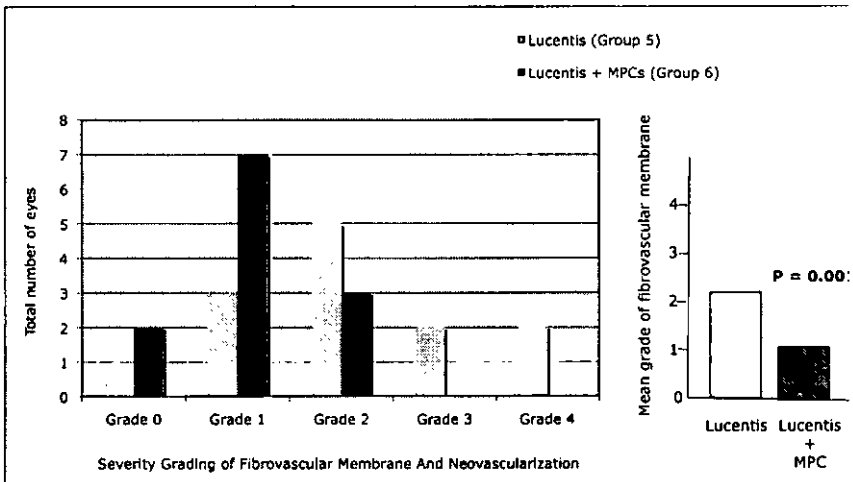


Figure 3. Combining allogeneic MPC with anti-VEGF prevents retinal detachment after laser-induced neovascularization



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While Lucentis alone prevented the most severe (grade 4) vessel leakage compared with controls at day 15, after this timepoint disease recurrence was seen and sole Lucentis therapy was ineffective relative to controls beyond day 15, **figure 2**. In contrast, adding a single injection of allogeneic stem cells completely eliminated the most severe (grade 4) leakiness throughout the entire 42-day trial period, **figure 2,** indicating that the combination prevented disease recurrence.

Thirdly, adding a single injection of allogeneic stem cells to Lucentis significantly reduced the formation of abnormal new blood vessels. As shown in **figure 3,** the mean severity score for formation of a fibrovascular membrane was over two-fold higher in Lucentis treated eyes than in eyes treated with the combination of Lucentis and allogeneic MPC. ($p=0.001$).

Finally, in comparison to Lucentis alone the incidence of retinal detachment throughout the trial was reduced by approximately 85% when a single injection of the allogeneic stem cells was added. Whereas retinal detachment occurred in 37/72 (51%) laser-treated eyes without combination therapy, it was seen in only 1/12 (9%) eyes receiving the combination therapy ($p<0.01$), **figure 4**.

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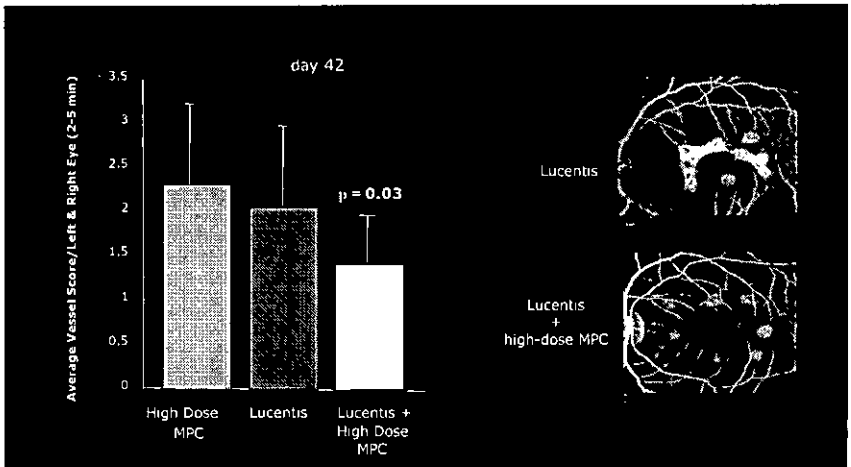
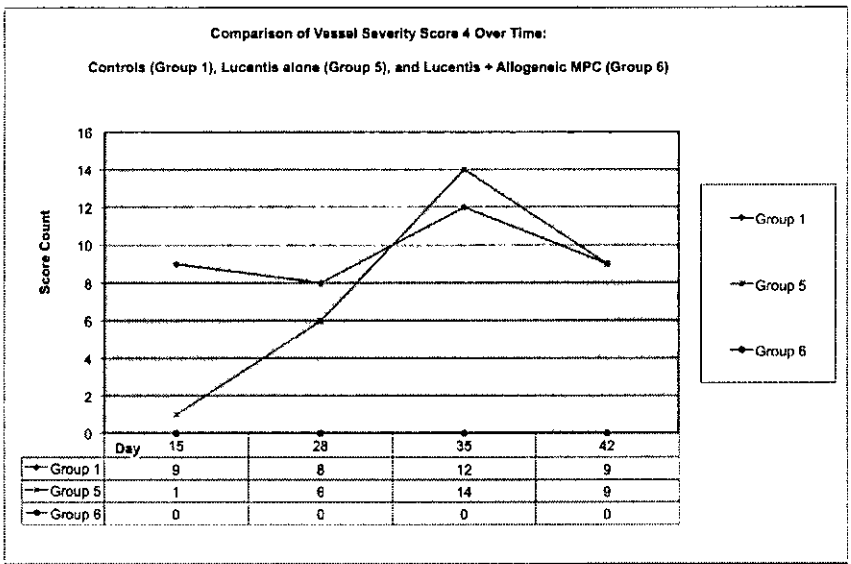


Figure 1. Allogeneic MPC are synergistic with anti-VEGF for preventing vessel leakage



Day	15	28	35	42
Group 1	9	8	12	9
Group 5	1	6	14	9
Group 6	0	0	0	0

Figure 2.Combination of allogeneic MPC + anti-VEGF prevents Stage 4 disease relapse seen with anti-VEGF alone after day 15.

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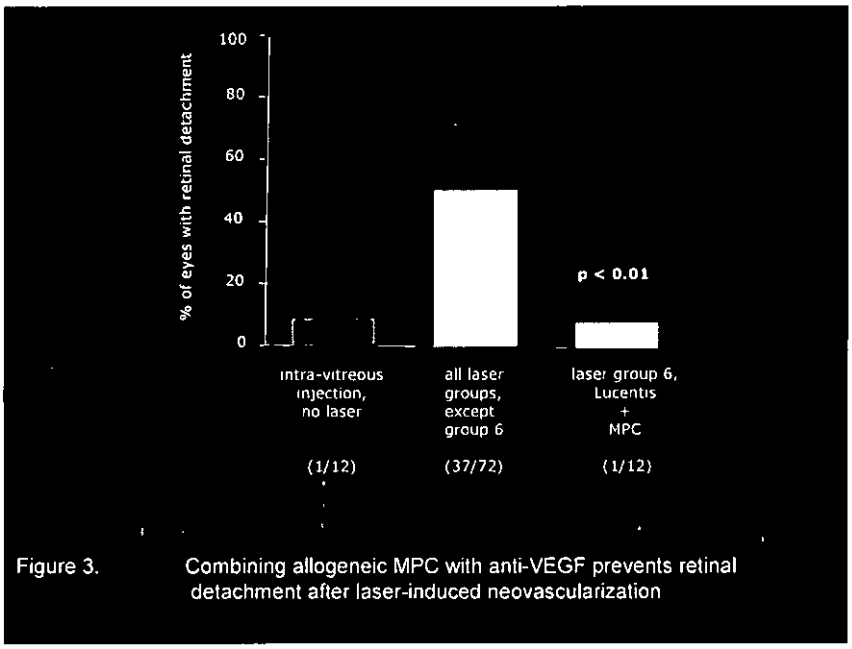

Figure 3. Combining allogeneic MPC with anti-VEGF prevents retinal detachment after laser-induced neovascularization

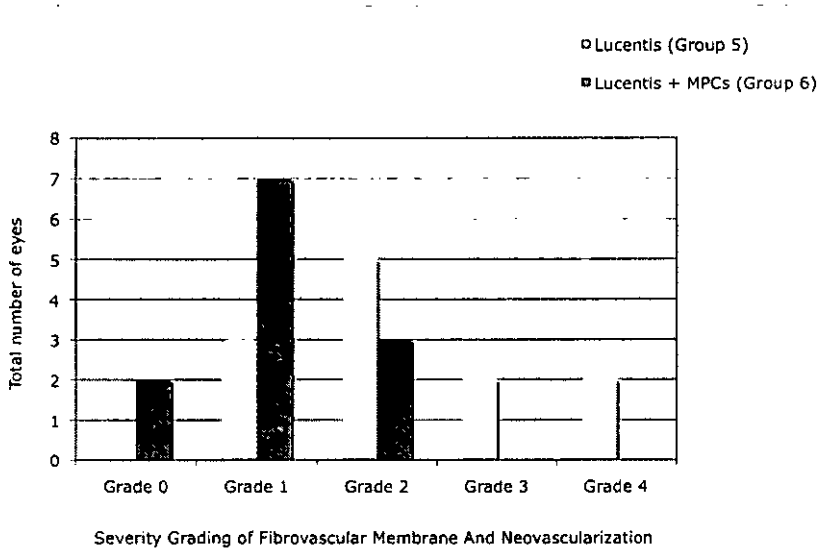

Figure 4. Combining allogeneic MPC with Lucentis reduces abnormal new blood vessel formation compared with Lucentis alone

END