



Medgenics, Inc.
(**'Medgenics' or the 'Company'**)

**MEDGENICS ANNOUNCES ENCOURAGING PRELIMINARY DATA
FOR PHASE I/II CLINICAL TRIAL OF EPODURE IN RENAL ANEMIA**

*Data will be presented during Renal Week 2008,
November 4th through 9th in Philadelphia, Pennsylvania*

Misgav, Israel and London, UK – 3 November, 2008 — Medgenics (AIM: MEDG), is pleased to announce encouraging preliminary data for its Phase I/II clinical trial.

The landmark Phase I/II clinical trial of Medgenics' EPODURE Biopump, for providing sustained treatment of anemia in subjects with chronic kidney disease, is underway. The current trial is designed to assess the safety and efficacy of the EPODURE Biopump in providing sustained elevation of hemoglobin by delivering sufficient supplemental amounts of the protein erythropoietin (EPO) for 3–6 months. Each subject will be monitored for 6 months after the EPODURE implantation. Further applications of the Biopump platform technology will be developed and tested from 2009 onwards.

The first month's data from the on-going Phase I/II trial has now been collected from the initial two anemic, chronic kidney disease subjects receiving the lowest dose in this dose escalating study. One subject received 2 and the other 3 Biopumps, reflecting the respective number needed to provide the intended low daily EPO dose of 18-25 IU/kg/day in each subject. The hemoglobin levels of each of these subjects have risen and remain within the target range of between 10 and 12 grams per deciliter for a month, with no adverse effects reported or observed, other than minor localized bruising typically associated with skin biopsy and implant. The 10-12 grams per decilitre range is what is recommended for such patients to treat their anemia. As the trial progresses these subjects will continue to be monitored, additional subjects will be enrolled and further data will be reported as key milestones are achieved. The Directors expect to commence testing on further subjects before the end of 2008.

The Directors are encouraged by the fact that, although the trials are at an early stage, the elevated hemoglobin levels seen in the 2 subjects currently participating in the trial suggest that immunogenicity issues have not been encountered thus far. Immunogenicity is the triggering of a natural immune response by the human body which could halt the protein production of the Biopump and which is thought to have curtailed the duration of EPO delivery in the Company's previous Phase I Clinical Trials, in 2003. In the previous trial, elevated hemoglobin levels were not seen despite dosage levels at least three times higher than those used thus far in the current trial. The Directors believe that the elevated hemoglobin levels and the apparent immune acceptance of the implanted EPODURE Biopumps, should be viewed positively, although more definitive conclusions can only be drawn once more subjects have been tested for a longer period.

Medgenics' Biopump is a unique tissue-based platform technology that processes a toothpick sized sliver of the inner layer of the subject's skin and is designed to provide sustained-action protein therapy for the treatment of a range of chronic diseases. As stated in the Company's Admission Document London AIM Exchange, the Directors believes that the Biopump platform technology will provide a wide range of advantages over existing protein therapies that will appeal and offer

benefits to doctors, patients and third party payers (e.g. medical insurers). These advantages include:

- ∞ Increased efficacy
- ∞ Improved safety
- ∞ Reversible treatment
- ∞ Reduced side effects
- ∞ Lower costs
- ∞ Elimination of frequent injections
- ∞ Extended treatment to undertreated populations

Additional subjects are being actively recruited for this study taking place at Hadassah Hebrew University Hospital in Jerusalem, Israel, which aims to test the technology on up to 30 subjects by the end of 2009.

These initial results will be presented at Renal Week 2008, the American Society of Nephrologists annual meeting and scientific exposition, in Philadelphia, Pennsylvania, USA on November 4-9, 2008. Dr. Michal Dranitzki Elhalel, principal nephrologist in the study will present on Thursday, November 6, 2008 at 4:45 p.m. at the Clinical Nephrology Conference and Medgenics Senior Scientists will present Medgenics' GMP vector and Toxicity Study in the Poster Session on Saturday, November 8, beginning at 10:00 am, at the Pennsylvania Convention Center.

Commenting on the preliminary results, Dr. Andrew Pearlman, Chief Executive Officer of Medgenics, said:

“While early data from the first two subjects is only a first indicator from this 30 subject study, we are encouraged that this study will show that Medgenics' EPODURE Biopump can be used to safely elevate hemoglobin levels in subjects with chronic kidney disease for three to six months (or more) from a single implant of one or more Biopumps. We look forward to reporting further as the study proceeds but, given the data collected and the apparent lack of an adverse immune response to the technology so far, we are cautiously optimistic that the trial will support the Directors' belief in this breakthrough platform technology.”

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NOTES TO EDITORS:

Medgenics, Inc. is a clinical-stage biopharmaceutical company developing its unique tissue-based Biopump platform technology to provide sustained-action protein therapy for the treatment of a range of chronic diseases.

Medgenics currently has two products in development based on this technology:

- ∞ EPODURE – producing erythropoietin (EPO) to treat anaemia
- ∞ INFRADURE – producing interferon-alpha (IFN- α) to treat hepatitis C

The Company has demonstrated proof of principle of the Biopump treatment procedure in a clinical trial using a short-acting version of EPODURE in anemic subjects. The Company commenced a Phase I/II clinical trial for its long-acting version of EPODURE, designed to produce and deliver a therapeutic dose of EPO steadily for three to six months or more, in August 2008. The Company plans to follow with a clinical trial of INFRADURE in 2009.

Medgenics intends to develop its innovative products and bring them to market via multiple strategic partnerships with major pharmaceutical and/or medical device companies, starting with EPODURE and INFRADURE.

Beyond these, Medgenics plans to develop and/or out-license a pipeline of future Biopump products targeting the large and rapidly growing global protein therapy market, which is forecast to reach US \$87 billion by 2010. Other potential areas include multiple sclerosis (interferon- β), haemophilia (Factor XIII), paediatric growth hormone deficiency (human growth hormone) and diabetes (insulin).

Founded in 2000, Medgenics is a US-incorporated company with major operations in Misgav, Israel. Medgenics was admitted to AIM in December 2007 (AIM: MEDG).

www.medgenics.com

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This release contains forward-looking statements, which include all statements other than statements of historical fact, including (without limitation) those regarding the Company's financial position, business strategy, plans and objectives of management for future operations. These statements relate to future events, prospects, developments and strategies. Forward-looking statements are sometimes identified by their use of the terms and phrases such as "estimate," "project," "intend," "forecast," "anticipate," "plan," "planning," "expect," "believe," "will," "will likely," "should," "could," "would," "may" or the negative of such terms and other comparable terminology. All such forward-looking statements are based on current expectations and are subject to risks and uncertainties. Should any of these risks or uncertainties materialize, or should any of the Company's assumptions prove incorrect, actual results may differ materially from those included within these forward-looking statements. Accordingly, no undue reliance should be placed on these forward-looking statements, which speak only as of the date made. The Company expressly disclaims any obligation or undertaking to disseminate any updates or revisions to any forward-looking statements contained herein to reflect any change in the Company's expectations with regard thereto or any change in events, conditions or circumstances on which any such statements are based. As a result of these factors, the events described in the forward-looking statements contained in this release may not occur.