



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

MEDGENICS' PHASE I/II CLINICAL TRIAL NOW SHOWS EPODURE CONTINUOUS ANEMIA TREATMENT LASTING 5 MONTHS IN KIDNEY DISEASE PATIENTS

- **Results to be presented at Israel Society of Nephrology Conference**
- **EPODURE safety and efficacy now reach 5 months from single treatment**
- **Data continue to indicate that Biopump may offer alternative to scores of expensive injections**

March 27, 2009 - Medgenics (AIM: MEDG) is pleased to announce that the latest, encouraging results of the Company's ongoing EPODURE Biopump Phase I/II Clinical Trial will be presented at the 45th Conference of the Israeli Society of Nephrology and Hypertension, in Israel on March 27, 2009.

The latest results of the trial show that in the first 2 of the patients treated, the hemoglobin level has now remained continuously in the target range of 10-12 g/dl for more than 5 months following a single EPODURE treatment using the lowest dose of 20 IU/kg/day, thus effectively treating their anemia without receiving any injections of erythropoietin (EPO) during this period. One of the patients received his last EPO injection more than 200 days ago. This is contrasted with the FDA approved standard regimen of thrice weekly EPO injections, in which typical patients would expect to receive up to 85 injections in this timeframe.

A total of 7 patients have now been treated, with 6 patients receiving treatment for more than one month. The seventh patient is the first to receive the higher dose of 40 IU/kg/day, which is double that of the lowest dosage, and the higher dose treatment is proceeding smoothly. There continue to be no adverse events reported in the study. Patient recruitment continues for the higher dose treatment.

The new data will be presented at the conference by Dr. Michal Dranitzki Elhalel, the principal nephrologist of Medgenics' EPODURE Phase I/II clinical trial, currently taking place at the Hadassah Hebrew University Hospital in Jerusalem, Israel.

The trial's sponsors and Principal Investigators are now seeking approval to broaden the study to include dialysis patients as well as pre-dialysis patients. More information on this will be announced as developments proceed.

The Company's active discussions with major potential strategic partners have expanded since the announcement in February, with additional companies having expressed interest in one or more applications.

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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 anemia
- INFRADURE – producing interferon-alpha (IFN- α) to treat Hepatitis-C

The Company's ongoing Phase I/II clinical trial for EPODURE in anemic patients continues to demonstrate proof of concept of the Biopump. Designed to produce and deliver a therapeutic dose of EPO steadily for up to six months or more, EPODURE Biopumps are already maintaining effective anemia treatment for more than 5 months in earliest patients in the ongoing study, even with low dose administered.

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.

Medgenics plans to raise the requisite funds during 2009 to enable it to follow the current trial of EPODURE with a Phase IIb clinical trial in the US starting in 2010, and in addition, to commence a Phase I/II trial of INFRADURE in Hepatitis-C patients in Israel also during 2010.

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), hemophilia (Factor VIII), pediatric 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 the London AIM in December 2007 (AIM: MEDG and AIM: MEDU).

www.medgenics.com

CAUTIONARY NOTICE REGARDING FORWARD-LOOKING STATEMENTS

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.