

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

NEW MEDGENICS CLOSING BRINGS ONGOING FUND RAISING TOTAL TO \$520,000

August 20, 2009

As part of ongoing fund raising, Medgenics is pleased to announce the commitment of an additional \$255,000 in convertible debentures, bringing the total received or committed to \$520,000. This figure includes the First Round closing figure, announced June 22nd. The new debentures comprise further investments of \$100,000 from Director Lord Leonard Steinberg, \$50,000 from an entity connected with Director Joel Kanter, \$55,000 in new investments by shareholders who are physicians with expertise in the clinical field addressed by Medgenics' lead product, EPODURE, and another \$50,000 from new investors. Of the \$520,000 raised in the current round to date, Directors of the Company have taken up \$295,000.

Commenting on the closing of the most recent tranche of fund raising, Dr. Andrew Pearlman, CEO of Medgenics commented:

"We are very encouraged by the fact that these new funds have come not only from new investors but also as new investment by existing shareholders, particularly those with expertise in the clinical field of our lead product, EPODURE. Together with additional participation by Directors Lord Steinberg and Joel Kanter, these investments demonstrate continued confidence in the Company. These funds give impetus to our ongoing fundraising efforts as we continue to see impressive results from our ongoing Phase I/II clinical study of EPODURE in treating renal anemia and while we make further advances towards strategic partnering. We anticipate being in a position to make further announcements on both of these fronts in the next few weeks."

Notes on Debentures:

The Debentures are not redeemable by the Company, are unsecured, mature on the second anniversary of the date of issuance and accrue interest at a rate of 10% per annum. In the event of default under the Debentures, the interest rate shall increase 2% per month for every month the Debentures are in default to a maximum of 18% per annum. According to the terms of the Debentures, they will automatically convert into Common Shares, together with the issuance of a significant amount of warrants to the Debenture holders upon conversion of the Debentures, if the Company completes a qualified transaction, such as a public offering of securities in the U.S. or certain merger or acquisition transactions. Such warrants will be immediately exercisable upon issuance and shall expire five years from the date of issuance. The exercise price under the warrants shall be 110% of the pricing in the applicable qualified transaction.

On the assumptions that: the conversion price of the Debentures is US \$0.07; the full conversion of US \$520,000 in principal amount of Debentures; no conversion of accrued interest and issuance of 10% broker warrants as commission (the "Assumptions"), the conversion in full of the Debentures will give rise to the issuance of 7,428,571 new Common Shares, equivalent to approximately 6 per cent of the outstanding Common Shares as enlarged by such issue. Based on the Assumptions, the maximum number of Common Shares to be issued on exercise in full of the warrants issued under these arrangements to investors will be 2,600,000 Common Shares, which would result in an additional US \$200,200 in proceeds to the Company upon payment of the exercise price. It should be noted, however, that there can be no assurance that the actual conversion price will not be less or greater than the assumed \$0.07 conversion price or that the other Assumptions will, ultimately, prove to be correct.

For further information, contact:

Medgenics, Inc. +972 4 902 8900
Dr. Andrew L. Pearlman

Blomfield Corporate Finance (Nominated adviser) +44 207 489 4500
James Pinner or
Alan MacKenzie

SVS Securities plc (Broker) +44 207 638 5600
Ian Callaway

Grayling Global +44 207 255 5406
Jonathan Shillington or
Alistair Scott

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-a) 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 10 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 2009/10 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.