



Notice of Special Meeting of Stockholders

Peplin, Inc.

Dear Stockholder (including a holder of a CHESS Depository Interest (**CDI**)):

The Company is calling a special meeting of stockholders (i.e. an Extraordinary General Meeting) (**EGM**) to be held at the Claremont Hotel, 41 Tunnel Road, Berkeley, California, United States on 21 April 2008, commencing at 4 pm, US Pacific Time (9 am Australian Eastern Standard Time on 22 April 2008). The purpose of the EGM is to enable stockholders to vote on, or with respect to CDI holders, to direct CHESS Depository Nominees Pty Ltd (**CDN**) how to vote on, resolutions (set out in the attached Notice of Meeting and Explanatory Statement) to:

- refresh stockholders' approval of the Company's proposed capital raising activities; and
- approve the participation of MPM Capital in the capital raising.

These items are fully discussed in the following pages, which form part of this Notice of Meeting. Your vote is important and you are encouraged to attend the EGM and exercise your vote either in person or by proxy. Only stockholders and CDI holders of record on the books of the Company at 1 am US Pacific Time on 18 March 2008 (7 pm Australian Eastern Daylight Time on 18 March 2008) are entitled to vote at, or with respect to CDI holders, to direct CDN how to vote at, the EGM.

It is important that your shares of common stock, or with respect to CDI holders, the shares of common stock underlying your CDIs, be represented at the EGM. Each holder of common stock may vote in person at the EGM or by proxy. Each CDI holder may direct CDN how it should vote at the EGM by delivering, in accordance with the instructions below, a completed proxy form. If a holder of CDIs wishes to attend and vote in person at the EGM, he or she must first instruct CDN to appoint them as proxy by completing and returning a proxy form in accordance with the instructions contained therein.

Enclosed with this Notice of Meeting you will find a proxy form applicable to your holding. Holders of shares of common stock must complete, and follow the instructions contained in, the proxy form labelled "Proxy of Common Stock" (**Common Stock Proxy**) and return the completed Common Stock Proxy in accordance with the instructions contained in the Common Stock Proxy. Holders of CDIs must complete, and follow the instructions contained in, the proxy form labelled "CDI Voting Instruction Form" (**CDI Proxy**) and return the CDI Proxy in accordance with the instructions contained in the CDI Proxy.

Please note that failure to complete and deliver the proper proxy form, or the failure to follow the instructions contained in the proper proxy form, may result in your vote not being counted when determining whether a quorum exists or when tallying the final votes. Even if you plan to attend the EGM in person, **please sign, date and return the applicable proxy form** as promptly as possible.

You may be able to vote, or with respect to CDI holders, to direct CDN how to vote, over the Internet by following the instructions contained in either the Common Stock Proxy or the CDI Proxy. **Please note that failure to follow the applicable instructions for voting over the Internet may result in your vote not being counted when tallying the final votes.**

Mailing your proxy(ies) or voting over the Internet will not prevent you from voting your shares of common stock in person if you attend the EGM, but will make sure that your shares of common stock are represented if you cannot attend the EGM. Please note, however, that if a brokerage firm, bank or other nominee (including CDN) holds your shares of record and you wish to vote at the EGM in person, you must obtain from the record holder a valid legal proxy issued in your name. As discussed above, if a holder of CDIs wishes to attend and vote in person at the EGM, he or she must first instruct CDN to appoint them as proxy by completing and returning the CDI Proxy.

Common Stock Proxies received by mail or over the Internet later than 8:59 pm on 20 April 2008, US Pacific Time (1:59 pm Australian Eastern Standard Time on 21 April 2008) will not be counted when tallying the final votes. Holders of common stock whose Common Stock Proxies are not received by mail or over the Internet by the deadline above can still vote their shares of common stock in person by attending the EGM.

CDI Proxies received by mail, fax or over the Internet later than 4 pm on 19 April 2008, US Pacific Time (9 am Australian Eastern Standard Time on 20 April 2008) will not be counted when tallying the final votes. Holders of CDIs whose CDI Proxies are not received by mail, fax or over the Internet by the deadline above are unable to vote their CDIs in person at the EGM.

If you have any questions, please contact the Company on 07 3250 1200. In addition, holders of common stock may contact Mellon Investor Services LLC on 877-223-0771 (within the United States) or +1-201-680-6578 (outside the United States) and holders of CDIs may contact Computershare Investor Services Pty Limited on 1300-850-505 (within Australia) or +61-3-9415-4000 (outside Australia).

Thank you for your continued investment and support.

Yours sincerely



Thomas Wiggans
CHAIRMAN
19 March 2008

Notice of Special Meeting of Stockholders

Proxy Statement for Special Meeting of Stockholders

Notice is given that a special meeting of stockholders (i.e. an Extraordinary General Meeting) (**EGM**) of **PEPLIN, INC. (Company)** will be held at the Claremont Hotel, 41 Tunnel Road, Berkeley, California, United States on 21 April 2008, commencing at 4 pm US Pacific Time (9 am Australian Eastern Standard Time on 22 April 2008).

Resolution 1: Approval of Future Capital Raising

To consider and, if thought fit, to pass the following resolution:

'That, for the purposes of ASX Listing Rule 7.1, Stockholders approve the issue and allotment of up to 6,250,000 shares of common stock on and subject to the terms set out in the Explanatory Statement accompanying this notice of Special Meeting of Stockholders.'

Resolution 2: Approval of issue of shares to MPM Capital

Subject to the approval of Resolution 1, to consider and, if thought fit, to pass the following resolution:

'That approval is given, for the purposes of ASX Listing Rule 10.11, to the issue and allotment to MPM Capital of shares of common stock in the numbers and on and subject to the terms more fully described in the Explanatory Statement accompanying this notice of Special Meeting of Stockholders.'

Information Notes

General

The proxy statement is approved by the board of directors of the Company for use in voting at this EGM.

The Company's CHESSE Depository Interests (**CDIs**) are traded on the Australian Securities Exchange (**ASX**). CDIs are exchangeable, at the option of the holder, into shares of our common stock at a ratio of 20:1.

These materials are first being mailed on or about 20 March 2008 (Australian Eastern Standard Time) to all holders of common stock entitled to vote at, or with respect to CDI holders, to direct CDN how to vote at, the EGM.

Record Date and Outstanding Shares

Only holders of record of common stock or CDIs at 1 am US Pacific Time on the record date, 18 March 2008 (7 pm Australian Eastern Standard Time on 18 March 2008), are entitled to receive notice of and to vote at, or with respect to CDI holders, to direct CDN how to vote at, the EGM. Stockholders are entitled to one vote for each share of common stock they held as of the record date. CDI holders are entitled to direct CDN how it should vote with respect to each share of common stock into which every 20 CDIs held by such holder as of the record date could be converted.

Voting and Solicitation

Each holder of common stock may vote in person at the EGM or by proxy. If you are the record holder of your shares of common stock and attend the meeting in person, you may deliver your completed proxy card to us at the meeting. Each CDI holder may direct CDN how it should vote at the EGM by delivering, in accordance with the instructions below, a completed proxy form. If a holder of CDIs wishes to attend and vote in person at the EGM, he or she must first instruct CDN to appoint them as proxy by completing and returning a proxy form in accordance with the instructions contained therein.

Enclosed with this Notice of Meeting you will find a proxy form applicable to your holding. Holders of shares of common stock must complete, and follow the instructions contained in, the proxy form labelled "Proxy of Common Stock" (**Common Stock Proxy**) and return the completed Common Stock Proxy in accordance with the instructions contained in the Common Stock Proxy. Holders of CDIs must complete, and follow the instructions contained in, the proxy form labelled "CDI Voting Instruction Form" (**CDI Proxy**) and return the CDI Proxy in accordance with the instructions contained in the CDI Proxy.

Please note that failure to complete and deliver the proper proxy form, or the failure to follow the instructions contained in the proper proxy form, may result in your vote not being counted for purposes of determining whether a quorum exists or when tallying the final votes.

When proxies are properly dated, executed and returned, the shares they represent will be voted at the EGM in accordance with the instructions of the stockholder or CDI holder (proxies cannot be voted for a greater number of persons than the number of nominees named). If no specific instructions are given on the proxy, the shares will be voted FOR each resolution.

You may be able to vote, or with respect to CDI holders, to direct CDN how to vote, over the Internet by following the instructions contained in either the Common Stock Proxy or the CDI Proxy. Please note that failure to follow the applicable instructions for voting over the Internet may result in your vote not being counted for purposes of determining whether a quorum exists or when tallying the final votes. If your shares are held in "street name" please check your proxy form or contact your broker or nominee to determine whether you will be able to vote by the Internet.

Mailing your proxy(ies) or voting over the Internet will not prevent you from voting your shares of common stock in person if you attend the EGM, but will make sure that your shares of common stock are represented if you cannot attend the EGM. Please note, however, that if a brokerage firm, bank or other nominee (including CDN) holds your shares of record and you wish to vote at the EGM in person, you must obtain from the record holder a valid legal proxy issued in your name. As discussed above, if a holder of CDIs wishes to attend and vote in person at the EGM, he or she must first instruct CDN to appoint them as proxy by completing and returning the CDI Proxy.

Common Stock Proxies received by mail or over the Internet later than 8:59pm US Pacific Time on 20 April 2008 (1:59 pm Australian Eastern Standard Time on 21 April 2008), will not be counted when tallying the final votes. Holders of common stock whose Common Stock Proxies are not received by mail or over the Internet by the deadline above can still vote their shares of common stock in person by attending the EGM.

CDI Proxies received by mail, fax or over the Internet later than 4pm US Pacific Time on 19 April 2008 (9 am Australian Eastern Standard Time on 20 April 2008) will not be counted when tallying the final votes. Holders of CDIs whose CDI Proxies are not received by mail, fax or over the Internet by the deadline above are unable to vote their CDIs in person at the EGM.

We are making this proxy solicitation by and on behalf of the board of directors.

Proxies may be solicited personally or by telephone, electronic mail or facsimile by the Company's officers, directors and regular employees, none of whom will receive additional compensation for assisting with solicitation.

Quorum and Required Vote

A quorum is required for the transaction of business during the EGM. A quorum is present when a majority of shares outstanding on the record date and entitled to vote are present in person or by proxy. Shares that are voted "FOR", "AGAINST" or "WITHHELD" on a matter are treated as being present at the meeting for purposes of establishing a quorum and are also treated as votes cast by the common stock present in person or represented by proxy at the EGM and entitled to vote on the subject matter.

Each resolution at the EGM requires a majority of the votes cast by those present and voting, so long as a quorum is present.

Revocability of Proxies

If you are a stockholder entitled to vote and you have submitted a Common Stock Proxy, you may revoke your proxy at any time before it is voted by delivering a written revocation to the Secretary of the Company, delivering a duly executed proxy bearing a later date or attending and voting in person at the EGM. If you hold your shares through a broker or custodian, you will need to contact them to revoke your proxy.

Voting Exclusion Statement

For purpose of determining approval, the Company will disregard any vote cast on:

- (a) Resolution 1 by any person intending to participate in the Capital Raising or any Associate of those persons; and
- (b) Resolution 2 by MPM Capital or any of its Associates.

However, the Company need not disregard a vote if:

- it is cast by a person as a proxy for a person who is entitled to vote, in accordance with the directions on the proxy form; or
- it is cast by a person chairing the meeting as proxy for a person who is entitled to vote, in accordance with a direction on the proxy form to vote as the proxy decides.

By order of the Board



David Smith
Company Secretary
19 March 2008

Explanatory Statement

This explanatory statement has been prepared for the information of stockholders of the Company in connection with the business to be conducted at the EGM to be held at the Claremont Hotel, 41 Tunnel Road, Berkeley, California, United States on 21 April 2008, commencing at 4 pm, US Pacific Time (9 am Australian Eastern Standard Time on 22 April 2008).

This information is important. You should read the information relating to the meeting carefully and if necessary, seek your own independent advice.

Resolution 1: Approval to Future Capital Raising

At the Special Meeting of Stockholders held on 15 January 2008, 98.8% of votes cast were in favour of a proposed capital raising in the United States and internationally by way of a public offering of shares of common stock (**Public Offering**) and/or a private placement of shares of common stock (collectively, the **Capital Raising**). We explained at that meeting that the Company may need to refresh the stockholder approval if the securities under the Capital Raising were not issued within three months.

As of the date of this Explanatory Statement, the Company has filed its fourth amendment to the registration statement on Form S-1 with US Securities and Exchange Commission. The Company has not completed the proposed Capital Raising

As of 31 December 2007 the Company had US\$38 million in cash on hand which includes the proceeds of a fully drawn US\$15 million loan facility with GE Capital. In view of its cash position and current volatility in international capital markets the Company has elected to monitor developing market conditions on an ongoing basis and plan its capital raising activities accordingly.

To allow the Company to continue to pursue the proposed Capital Raising, the Company is required by the Listing Rules of the Australian Securities Exchange (**ASX**) to seek a fresh approval from stockholders as it intends to issue more than 15% of its capital.

Set out below is the information required to be disclosed in compliance with Listing Rule 7.3:

- (a) The maximum aggregate number of securities proposed to be issued under the Capital Raising is 6,250,000 shares of common stock.
- (b) The actual number of shares to be issued under the Capital Raising, including any shares to be sold pursuant to any over-allotment option provided in favour of the underwriters, and the price per share in the Capital Raising will be determined by the Company in consultation with the lead manager, or pursuant to direct negotiations with purchasers in the Capital Raising, in each case, in light of then current market conditions. The number of shares sold in the Capital Raising may be less than the number of shares referred to above. The Company seeks to secure approval for this maximum aggregate number of shares to ensure the greatest flexibility to conduct a successful Capital Raising.
- (c) The Company expects that common stock will be issued pursuant to the approval given at this EGM for the Capital Raising no later than three months after the date of the EGM.
- (d) The issue price for the common stock issued pursuant to the Capital Raising will be at least 80% of the average market price of the CDIs representing shares of common stock multiplied by 20 over the five trading days prior to pricing of the Capital Raising.

- (e) Details of the allottees are not known at the date of this Explanatory Statement. The allottees may include various international investors. It is proposed that MPM Capital will participate in the Capital Raising, subject to stockholder approval in Resolution 2 below.
- (f) The terms of the common stock to be allotted pursuant to the Capital Raising will be the same, in all respects, as the Company's existing common stock.
- (g) The Company currently expects to use the net proceeds from the Capital Raising to fund the clinical development of its product candidates and the remainder of the net proceeds for working capital and for general corporate purposes.

The Company may also use a portion of the net proceeds to enter into future collaborations or to invest in businesses or technologies that the Company believes are complementary to its own. The Company has no present understandings, commitments or agreements to enter into any potential acquisitions, collaborations or investments at this time.

The amount and timing of the Company's actual expenditures may vary significantly depending on numerous factors, including the status of the Company's product development, regulatory requirements and the Company's commercialisation efforts, the amount of proceeds actually raised in the Capital Raising, and the amount of proceeds generated, if any, by entering into future collaborations. The ultimate use of the Company's cash resources may vary significantly from the estimated uses outlined above. Accordingly, the Company retains broad discretion over the use of net proceeds of the Capital Raising.

- (h) The directors intend to issue common stock under the Capital Raising in one allotment. However, the directors reserve the right to allot the common stock progressively.

The Directors recommend that stockholders vote in favour of the proposed resolution. The Chairman of the Board intends to vote undirected proxies in favour of this resolution.

Resolutions 2: Approval of issue of shares to MPM Capital

This resolution is subject to stockholders approving Resolution 1 above.

As mentioned above, MPM Capital proposes to participate in the Capital Raising. On the basis that your director, James Scopa, is a general partner of MPM Capital, shareholder approval is sought for the issue of common stock to MPM Capital as a related party of the Company under ASX Listing Rule 10.11. Where approval is given under ASX Listing Rule 10.11, approval is not required under ASX Listing Rule 7.1.

MPM Capital is a global investment management firm focused solely on life sciences investing. One of the largest management firms dedicated to the life sciences sector, MPM Capital has offices in Boston and San Francisco. MPM Capital's portfolio ranges from start-ups to large capitalisation public companies, with a primary focus on biopharmaceutical and medical device companies nearing commercialisation of products or those companies that already offer product-driven opportunities.

Further information about MPM Capital can be found at www.mpmcapital.com.

Set out below is the further information required to be disclosed in compliance with Listing Rule 10.11:

- (a) The Company proposes to issue up to 1,000,000 shares of common stock to MPM Capital under the Capital Raising.
- (b) The shares will be issued to MPM Capital at the issue price under the Capital Raising.
- (c) All Shares will be allotted and issued to MPM Capital no later than one month after the date of the EGM.
- (d) The terms of the common stock to be allotted to MPM Capital will be the same, in all respects, as the Company's existing common stock.
- (e) Funds raised on the issue of shares to MPM Capital will be used for the same purposes as set out in Resolution 1.

Mr James Scopa, who has a personal interest in the subject of this resolution, has abstained from making a recommendation. The other Directors recommend that Shareholders vote in favour of the proposed resolution. The Chairman of the Board intends to vote undirected proxies in favour of this resolution.

The discussion in this explanatory statement contains forward-looking statements. Forward-looking statements are based on information available at the time those statements are made and management's good faith belief as of that time with respect to future events, and are subject to risks and uncertainties that could cause the actual occurrence or timing of events to differ materially from those expressed in or suggested by the forward-looking statements. We do not have any intention or obligation to update forward-looking statements in this explanatory statement after the date of this explanatory statement, except as required by law.