

PROXY CARD

SAFESTITCH MEDICAL, INC.

4400 Biscayne Blvd., Suite A-100
Miami, Florida 33137

THIS PROXY IS SOLICITED ON BEHALF OF THE BOARD OF DIRECTORS
ANNUAL MEETING OF STOCKHOLDERS — JUNE 10, 2009

The undersigned hereby appoints Jeffrey G. Spragens and Adam S. Jackson, and each of them severally, as proxies of the undersigned, each with full power to appoint his substitute, to represent the undersigned at the Annual Meeting (the "Annual Meeting") of Stockholders of SafeStitch Medical, Inc. (the "Company") to be held on June 10, 2009, and at any adjournments thereof, and to vote thereat all shares of common stock of the Company held of record by the undersigned at the close of business on April 24, 2009 in accordance with the instructions set forth on this proxy card and, in their discretion, to vote such shares on any other business as may properly come before the Annual Meeting and on matters incident to the conduct of the Annual Meeting. Any proxy heretofore given by the undersigned with respect to such stock is hereby revoked.

PLEASE MARK, DATE AND SIGN THIS PROXY ON THE REVERSE SIDE AND RETURN IT IN THE ENCLOSED ENVELOPE

THE BOARD OF DIRECTORS RECOMMENDS A VOTE "FOR" EACH OF THE FOLLOWING PROPOSALS

PROXY

Please mark your votes like this



1. Election of seven directors.

NOMINEES:

- (01) Jane H. Hsiao, Ph.D.
(02) Jeffrey G. Spragens
(03) Charles J. Filipi, M.D.
(04) Kenneth Heithoff, M.D.
(05) Richard C. Pfenniger, Jr.
(06) Steven D. Rubin
(07) Kevin Wayne, Ph.D

FOR ALL NOMINEES

[Empty square box for voting 'FOR ALL NOMINEES']

WITHHOLD AUTHORITY for all Nominees

[Empty square box for voting 'WITHHOLD AUTHORITY']

FOR ALL NOMINEES EXCEPT (see instructions below)

[Empty square box for voting 'FOR ALL NOMINEES EXCEPT']

2. In their discretion, the proxy holders are authorized to vote upon such other matters as may properly come before the Annual Meeting or any postponement or adjournment thereof.

THIS PROXY WHEN PROPERLY EXECUTED WILL BE VOTED AS INDICATED. IF NO CONTRARY INDICATION IS MADE, THIS PROXY WILL BE VOTED IN FAVOR OF ELECTING THE SEVEN NOMINEES TO THE BOARD OF DIRECTORS AND IN ACCORDANCE WITH THE JUDGMENT OF THE PERSONS NAMED AS THE PROXIES HEREIN ON ANY OTHER MATTERS THAT MAY PROPERLY COME BEFORE THE ANNUAL MEETING.

INSTRUCTION: To withhold authority to vote for any individual nominee(s), mark "FOR ALL EXCEPT" and, in the list above, strike a line through the name of the nominee for whom you wish to withhold your vote.

The undersigned acknowledges receipt of the accompanying Notice of Annual Meeting of Stockholders and Proxy Statement for the June 10, 2009 meeting.

COMPANY ID:

PROXY NUMBER:

ACCOUNT NUMBER:

Signature \_\_\_\_\_ Signature \_\_\_\_\_ Date \_\_\_\_\_, 2009.

NOTE: Please sign exactly as your name or names appears hereon. When shares are held by joint owners, both must sign. When signing as attorney, executor, administrator, trustee or guardian, please give title as such. If a corporation, please sign in full corporate name by president or other authorized officer. If a partnership, please sign in partnership name by authorized person.