

ANNUAL MEETING OF STOCKHOLDERS OF  
**CAS MEDICAL SYSTEMS, INC.**

June 9, 2010

**NOTICE OF INTERNET AVAILABILITY OF PROXY MATERIAL:**

The Notice of Meeting, proxy statement and proxy card are available at [www.casmed.com](http://www.casmed.com)

Please sign, date and mail your proxy card in the envelope provided as soon as possible.

↓ Please detach along perforated line and mail in the envelope provided. ↓

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THE BOARD OF DIRECTORS RECOMMENDS A VOTE "FOR" THE ELECTION OF DIRECTORS AND "FOR" PROPOSAL 2.  
PLEASE SIGN, DATE AND RETURN PROMPTLY IN THE ENCLOSED ENVELOPE. PLEASE MARK YOUR VOTE IN BLUE OR BLACK INK AS SHOWN HERE

1. Election of Directors.

- FOR ALL NOMINEES
- WITHHOLD AUTHORITY FOR ALL NOMINEES
- FOR ALL EXCEPT (See instructions below)

NOMINEES:

- Jerome Baron
- Lawrence S. Burstein
- Evan Jones
- Andrew E. Kersey
- Louis P. Scheps
- Kenneth R. Weisshaar

**INSTRUCTION:** To withhold authority to vote for any individual nominee(s), mark "FOR ALL EXCEPT" and fill in the circle next to each nominee you wish to withhold, as shown here: ●

2. To ratify the selection of J. H. Cohn LLP as independent auditors for the Company's fiscal year ending December 31, 2010.  FOR  AGAINST  ABSTAIN

To transact such other business as may properly come before the annual meeting.

This proxy, when properly executed, will be voted in the manner directed by the undersigned stockholder. If no direction is made, this proxy will be voted FOR proposals 1 and 2. Please sign exactly as name appears on the left.

**PLEASE MARK, SIGN, DATE AND RETURN THE PROXY CARD PROMPTLY USING THE ENCLOSED ENVELOPE.**

To change the address on your account, please check the box at right and indicate your new address in the address space above. Please note that changes to the registered name(s) on the account may not be submitted via this method.

Signature of Stockholder \_\_\_\_\_ Date: \_\_\_\_\_ Signature of Stockholder \_\_\_\_\_ Date: \_\_\_\_\_

**Note:** Please sign exactly as your name or names appear on this Proxy. When shares are held jointly, each holder should sign. When signing as executor, administrator, attorney, trustee or guardian, please give full title as such. If the signer is a corporation, please sign full corporate name by duly authorized officer, giving full title as such. If signer is a partnership, please sign in partnership name by authorized person.

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**CAS MEDICAL SYSTEMS, INC.**

**44 East Industrial Road, Branford, Connecticut 06405**

**This Proxy is Solicited on Behalf of the Board of Directors**

The undersigned hereby appoints Louis P. Scheps and Andrew E. Kersey, and each of them, as the true and lawful attorneys, agents and proxies of the undersigned, each with full power of substitution, to represent and vote all shares of common stock of CAS Medical Systems, Inc. held of record by the undersigned on April 21, 2010 at the Annual Meeting of Stockholders to be held on June 9, 2010 and at any adjournment thereof, as specified on the reverse side of this proxy card and in their discretion upon such other matters as may properly come before such Annual Meeting and at any adjournment thereof. Any and all proxies heretofore given are hereby revoked.

**(Continued and to be signed on the reverse side)**