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KIPS BAY
MEDICAL, INC.

2010 Annual Report

A letter from the CEO...

To our friends and Stockholders,

In 2007, we embarked on developing a technology platform to improve the outcome of cardiac bypass surgery. We based our product on a concept that has been researched and studied for over 50 years. Since then, advances in material technology have allowed us to provide the strength and compliance necessary to properly support veins used in coronary artery bypass grafting (CABG) surgery. During 2010, we completed a successful international multi-center clinical study, received CE Mark approval and began to establish a distribution network. This network has allowed us to commercialize our eSVS® MESH and begin human implants in a variety of countries.

We strengthened our staff during 2010 with the addition of our Vice President of Finance, Scott Kellen; our Director of International Sales and Marketing, Douglas Jensen and additional personnel in manufacturing. We now have fifteen distributors representing 49 countries.

Building on these accomplishments, we successfully raised \$16.5 million through an initial public offering in February 2011. Simultaneously, we have continued our efforts to seek Food and Drug Administration approval of our investigational device exemption application.

The acceptance of our eSVS MESH overseas is encouraging but still requires our continuous support through multiple visits at various centers throughout the world. During 2011, we will be adding to our sales and marketing team and we will be presenting at various medical meetings throughout the year.

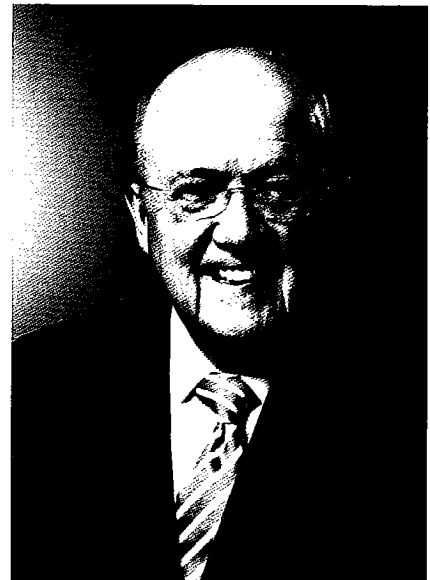
We have a strong team of thirteen employees dedicated to bringing this innovative technology to the cardiac surgeons of the world. With collaboration from implanting centers, we continue to gather data from patients to reinforce our beliefs that we are making a significant contribution to CABG surgery.

We thank all of our employees, supporters, suppliers, and stockholders for their continued support as we look into 2011 as a year of "...advancing, refining and improving cardiac surgery".

Respectfully submitted for our Board of Directors,



Manny Villafañá
Founder, CEO, Chairman of the Board





eSVS[®] Mesh

Not available in the United States

Our **External Saphenous Vein Support Technology**, or **eSVS MESH** is a mesh sleeve made of nitinol, an alloy of nickel and titanium, that is placed over the saphenous vein graft during coronary artery bypass grafting, or CABG, surgery. We believe the use of our eSVS MESH with saphenous vein grafts in CABG surgery could improve the long-term outcome of CABG procedures, including improved openness and improved blood flow through the saphenous vein graft, resulting in a reduced need for costly and potentially complicated reoperations or revascularization procedures.

Board of Directors

Manny Villafaña

Founder, Chief Executive Officer,
and Chairman of the Board,
Kips Bay Medical, Inc.

Michael P. Winegar

Chief Operating Officer and
Vice President of Regulatory Affairs
Kips Bay Medical, Inc.

Robert E. Munzenrider

E-Commerce Executive and
Former Chief Financial Officer of
St. Jude Medical, Inc.

Robert J. Sheehy

Operating Partner and Member of
Strategic Advisory Board of
Genstar Capital and Former CEO
of United Healthcare, a division of
UnitedHealth Group.

Archie C. Smith

Private Investor and
Former Venture Partner at Sight Line
Partners.

Executive Officers

Manny Villafaña

Founder, Chief Executive Officer,
and Chairman of the Board,
Kips Bay Medical, Inc.

Michael P. Winegar

Chief Operating Officer and
Vice President of Regulatory Affairs
Kips Bay Medical, Inc.

Scott Kellen

Chief Financial Officer,
Vice President of Finance and
Secretary
Kips Bay Medical, Inc.

Professional Service Providers

Independent Auditors

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Minneapolis, MN 55402

Legal Counsel

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Minneapolis, MN 55402

Patent Counsel

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