

VOL.81 NO.2 March 2008 \$5.00

SAN FRANCISCO MEDICINE

JOURNAL OF THE SAN FRANCISCO MEDICAL SOCIETY

Music



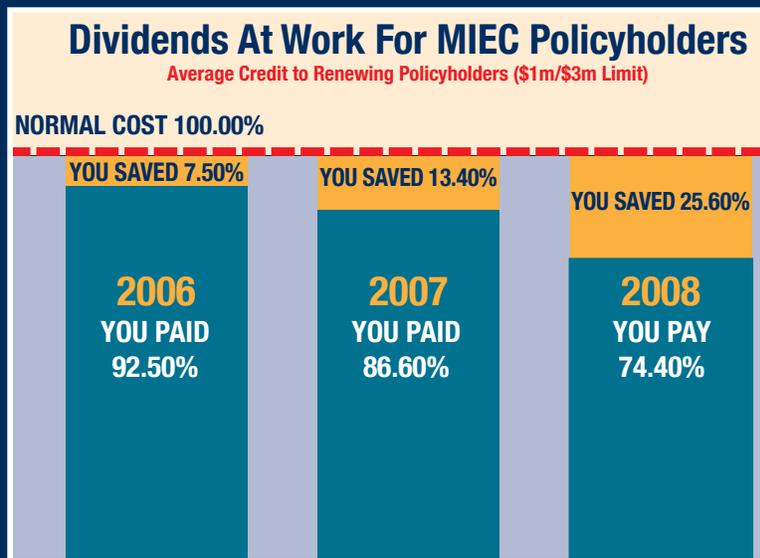
and Medicine

What makes MIEC policyholders happy?

MIEC Announces \$17 Million in Dividends

\$5M in 2006 • \$8.5M in 2007 • \$17M in 2008*

At MIEC we have a history of returning profits after expenses to YOU by reducing your premiums with dividends. Our policyholders own 100% of MIEC.



Find out how you can become an owner too!

For more information or to apply: Go to www.miec.com or call 1-800-227-4527, and a helpful receptionist (not an automated phone tree) will connect you to one of our knowledgeable underwriting staff.

* Future dividends cannot be guaranteed.

SAN FRANCISCO MEDICINE March 2008 Volume 80, Number 2FEATURE ARTICLES **Music and Medicine**

- 10** **Healing the Healer: The Blues for Docs with the Blues**
Roy Rogers
- 11** **Musicophilia: A Feeling for Music**
Ashley Skabar
- 13** **Living with Music: One Musician's Perspective**
Nolan Gasser, PhD
- 15** **Soothing the Sick with Sound: Music at Stanford Hospital**
Greg Kaufman
- 17** **The Power of Music: The Transformed Moment**
Susan Mazer
- 19** **Music Therapy at Langley Porter: The Union of Clinical and Musical Skills**
Tom Benson, MT-BC
- 21** **Healing Muses: Adding Sound to Silent Technology**
Eileen Hadidian
- 22** **Enriching Hospice Care: Music at the End of Life**
Kris Montgomery
- 24** **The Threshold Choir: Singing to Assist Transitions**
Kate Munger
- 25** **The Healing Harp: The Oldest Healing Musical Instrument**
Claire Dunne
- 27** **Calming the Surgeon and the Patient: The Positive Effects of Music in the OR**
John Maa, MD, FACS
- 28** **Jake Leg: A Public Health Mystery is Solved through the Blues**
Eisha Zaid
- 29** **From Mind to Heart: A Healing Musical Journey**
Gary Malkin
- 31** **Life in the Vortex: Introductory Notes from a Physician-Musician**
Bruce S. Victor, MD
- 33** **Doctor of Harmony: Care of Musical People and Musical Hands**
Robert E. Markison, MD
- 35** **Living Both Music and Medicine: Where the Two Practices Intersect**
As Told by Various San Francisco-Based Physician-Musicians

MONTHLY COLUMNS

- 4** **On Your Behalf**
- 6** **Executive Memo**
Mary Lou Licwinko, JD, MHSA
- 7** **President's Message**
Steven Fugaro, MD
- 9** **Editorial**
Mike Denney, MD, PhD
- 44** **Hospital News**
- 46** **In Memoriam**
Nancy Thomson, MD

SFMS 2008 ANNUAL DINNER

- 40** **Annual Dinner Photos**
- 42** **A Note from the Keynote Speaker**
We Can Do Better: Improving the Health of the American People
Steven A. Schroeder, MD

Editorial and Advertising Offices
1003 A O'Reilly
San Francisco, CA 94129
Phone: 415.561.0850 ext.261
Fax: 415.561.0833
Email: adenz@sfms.org
Web: www.sfms.org

Subscriptions:
\$45 per year; \$5 per issue
Advertising information is available on our website, www.sfms.org, or can be sent upon request.

Printing:
Sundance Press
P.O. Box 26605
Tucson, AZ 85726-6605

March 2008

Volume 81, Number 2

Editor Mike Denney

Managing Editor Amanda Denz

Copy Editor Mary VanClay

Cover Artist Amanda Denz

Staff Photographer Ashley Skabar

EDITORIAL BOARD

Chairman Mike Denney

Obituarist Nancy Thomson

Stephen Askin Shieva Khayam-Bashi

Toni Brayer Arthur Lyons

Linda Hawes-Clever Terri Pickering

Gordon Fung Ricki Pollycove

Erica Goode Kathleen Unger

Gretchen Gooding Stephen Walsh

SFMS OFFICERS

President Steven H. Fugaro

President-Elect Charles J. Wibbelsman

Secretary Gary L. Chan

Treasurer Michael Rokeach

Editor Mike Denney

Immediate Past President Stephen E. Follansbee

SFMS Executive Staff

Executive Director Mary Lou Licwinko

Director of Public Health & Education Steve Heilig

Director of Administration Posi Lyon

Director of Membership Therese Porter

Director of Communications Amanda Denz

Board of Directors

Term: Donald C. Kitt

Jan 2008-Dec 2010 Jordan Shlain

George A. Fouras Lily M. Tan

Keith Loring Shannon Udovic-

William Miller Constant

Jeffrey Newman **Term:**

Thomas J. Peitz **Jan 2006-Dec 2008**

Daniel M. Raybin Mei-Ling E. Fong

Michael H. Siu Thomas H. Lee

Term: Carolyn D. Mar

Jan 2007-Dec 2009 Rodman S. Rogers

Brian T. Andrews John B. Sikorski

Lucy S. Crain Peter W. Sullivan

Jane M. Hightower John I. Umekubo

CMA Trustee Robert J. Margolin

AMA Representatives H. Hugh Vincent, Delegate
Robert J. Margolin, Alternate Delegate

ON YOUR BEHALF

A sampling of activities and actions of interest to SFMS members

Notes from the Membership Department

Membership Events

The Golf Mixer at the Presidio Golf Club Thursday, April 17, from 5:30 to 7:30

Enjoy hosted beverages, appetizers and lively conversation in a beautiful setting while learning about this historic course from the Club's Golf Pros. The Presidio Golf Club has developed a special arrangement for San Francisco Medical Society members who wish to join the Club. Learn more about the Golf Club by visiting their website www.presidio-golfclub.com

The cost for this Mixer is just \$10.00 for members and \$15.00 for non-members. Nonmember physicians who join the Medical Society at this event will have their event fee deducted from their already discounted first year dues, making this a great event to bring your physician peers who are not yet SFMS members.

For more information, or to RSVP, contact Therese Porter in the Membership Department at (415) 561-0850, extension 268 or tporter@sfms.org. We need your RSVP no later than Thursday, April 10.

A Night at the deYoung Museum! Friday, May 9, from 5:30 to 7:30

Join SFMS members for a reception with access the entirety of this stunning museum. Just \$20.00 (includes museum admission). Contact Therese Porter for more information or to RSVP.

The San Francisco Medical Society is interested in your feedback and suggestions for membership events that are interesting and fun for our members. Contact Therese Porter in the Membership Department at (415) 561-0850 extension 268 or tporter@sfms.org.

Calling All Artists!

The Medical Society is looking for cover art for its 2008-2009 Membership Directory, which will be published in late spring. If you are interested in submitting

photographic or fine art for the Directory, contact Therese Porter in the Membership Department at (415) 561-0850 extension 268 or tporter@sfms.org.

Attention, Young Physicians!

The San Francisco Medical Society has formed an active and vibrant Young Physicians section to better address the needs and concerns of members age forty-five and under. A variety of social and educational gatherings are a featured part of this newest component of SFMS membership. If you are interested in participating, contact Tom Lee, MD, at tomxlee@yahoo.com.

Mark Your Calendars

The California Medical Association Legislative Leadership Day is scheduled for Tuesday, April 15, in Sacramento. More information will be coming soon, but all members are encouraged to attend this interesting and exciting day dedicated to bringing the State's lawmakers and physicians together to promote the health of California.

SFMS Seminar Schedule

Advance registration is required for all SFMS seminars. Please contact Posi Lyon at plyon@sfms.org or (415) 561-0850 extension 260 for more information. All seminars take place at the SFMS offices, located in the Presidio in San Francisco.

April 18, 2008

Customer Service/Front Office Telephone Techniques

9:00 a.m. to 12 p.m. (8:40 a.m. registration/continental breakfast). This half-day practice management seminar will provide valuable staff training to handle phone calls and scheduling professionally and efficiently. \$99 for SFMS/CMA members and their staff (\$89 each for additional attendees from the same office); \$149 each for nonmembers.

May 16, 2008

Managing the Team (for office managers and administrators)

9:00 a.m. to 12:00 p.m. (8:40 a.m. registration and continental breakfast)

Motivating and Managing Your Office Manager (for physicians)

12:15 to 1:45 p.m. (12:00 p.m. registration and lunch). These two seminars are designed to help physicians and their office managers set expectations, manage change, and design a practice culture that helps the practice thrive. \$99 for Managing the Team for SFMS/CMA members and their staff (\$85 each for additional attendees from same office); \$149 each for nonmembers. \$69 for Motivating and Managing Your Office Manager for SFMS/CMA members (\$59 each for additional attendees from same office); \$109 for nonmembers. \$150 for both sessions for members; \$225 for nonmembers.

October 3, 2008

Customer Service/Front Office Telephone Techniques

This half-day practice management seminar will provide valuable staff training to handle phone calls and scheduling professionally and efficiently. 9:00 a.m. to 12:00 p.m. (8:40 a.m. registration/continental breakfast). \$99 for SFMS/CMA members and their staff (\$89 each for additional attendees from the same office); \$149 each for nonmembers.

November 4, 2008

"MBA" for Physicians and Office Managers

9:00 a.m. to 5:00 p.m. (8:40 a.m. registration/continental breakfast). This one-day seminar is designed to provide critical business skills in the areas of finance, operations, and personnel management. \$250 for SFMS/CMA members and their staff (\$225 each for additional attendees from same office); \$325 for nonmembers.

Other Upcoming Events

April 10, 2008

Arthritis Foundation 42nd Annual Knowles Lecture

Concordia-Argonaut Club, San Francisco
David S. Pisetsky, MD, PhD, will present "The Role of Alarmins in Inflammatory Disease: The Danger from Within." Alarmins, a new class of proinflammatory mediators, deliver endogenous "danger" signals to the immune system when released from dead and dying cells, stimulating inflammation. They are of high clinical interest and are the target of novel therapies. For more information e-mail marnold@arthritis.org, call (415) 356-5484, or visit www.arthritis.org/chapters/northern-california/events.php.

April 16–18, 2008

AMA Medical Communications Conference

Paradise Point Resort & Spa, San Diego
Whether you are a physician broadcaster combining medical practice with medical news reporting, a spokesperson on the front lines delivering health care messages, or a public relations professional behind the scenes pitching stories, the 28th annual American Medical Association (AMA) Medical Communications Conference promises to broaden your horizons, sharpen your skills, build your network, and make you a more effective medical communicator. E-mail phernandez@q1productions.com for more information.

May 2–4, 2008

2008 CMA Leadership Academy

Disney's Grand Californian Hotel in Anaheim
Continuing the Academy's standard of programming excellence, the 11th Annual Leadership Academy looks from the past to the future to assess both broad trends and specific key developments affecting the practice of medicine in California and beyond. The realities of the present will also be addressed with a series of practical and powerful workshops designed to help meet today's medical practice challenges. Visit www.cmanet.org/leadership for more information.

May 2–3, 2008

Monterey Bay Regional Heart Symposium
Quail Lodge, Carmel Valley, California

Physicians are invited to attend this conference, featuring nationally recognized cardiologists and heart researchers, to aid their understanding and management of coronary artery disease. For more information, visit www.montereyheart.org.

June 12–15, 2008

Living on the Fault Line: Advances in Occupational Medicine

The Claremont Resort and Spa, 41 Tunnel Rd., Berkeley, 8 a.m. to 6 p.m.

The California Society of Industrial Medicine and Surgery (CSIMS) in conjunction with faculty from UCSF is offering a continuing education seminar that will address cutting-edge concepts regarding practice, research, and policy in the field of occupational medicine. Visit www.csims.net for more information.

June 15–18, 2008

ENDO 08: The Endocrine Society's 90th Annual Meeting

The Moscone Center, San Francisco
This meeting offers an unprecedented opportunity to learn about the latest advances in endocrine research and clinical care while networking and collaborating with more than 7,000 colleagues from around the world. Discover and evaluate the latest advances in endocrinology. Hear from leaders in the field. Choose from among more than 200 educational programs, including plenary symposia, updates, debates, and more. For more information, visit www.endo-society.org.

August 10–15, 2008

Essentials of Primary Care: A Core Curriculum for Ambulatory Practice

Resort at Squaw Creek, North Lake Tahoe
This course will serve as an excellent update and review for current primary care physicians and other primary care professionals, and as an opportunity for specialists to expand their primary care knowledge and skills. For more information, visit www.cme.ucsf.edu. 

Mary Lou Licwinko, JD, MHSA



Health Care Reform

About a year ago, I traveled with the San Francisco Chamber of Commerce to Sacramento to learn about Governor Schwarzenegger's new proposal for universal health care coverage. Because there are nearly 6.6 million individuals in California without health insurance, many of them working people and their families, everyone agreed something needed to be done. More than 18 percent of Californians do not have health insurance; California ranks fifth in the nation by percent of those without insurance.

In Sacramento, we were briefed by several of the Governor's staff members, who told us that there would definitely be health care reform for California in 2007. We then heard from other Republicans who thought the Governor's plan went too far and from Democrats who thought it did not go far enough. Everyone, however, pointed to the cost of providing health care to a large, uninsured population who often use emergency rooms for primary care or let conditions go untreated until the cost of treatment is astronomical.

All concluded that there certainly should be system that would provide greater access to care for all Californians.

We all know what became of the various health care reform plans. There was difficulty between the legislators and the Governor in reaching agreement. When the leaders of the Assembly and the Governor finally did agree to a plan, the Senate refused to approve it, citing budget restraints. Not only was health care reform stopped dead in its tracks but the legislature and the Governor decided to balance the budget on the back of Medi-Cal by slashing Medi-Cal provider rates by 10 percent, effective July 1. In February, these cuts were rushed through the legislature with little public comment as part of an emergency spending plan.

So now California still has more than 6 million uninsured and is soon to have Medi-Cal recipients with less access to care than they had last year, when health care reform was all the rage. Currently, fewer than half of the physicians in California take Medi-Cal because, at its current rate, Medi-Cal does not cover the costs of the physician's time, overhead, and other expenses. For example, a primary care office visit is reimbursed at \$20. Anyone who has taken a pet to a veterinarian lately will know that you can not even get in the door for \$20. Not only is it shameful that we are cutting access for Medi-Cal patients but it is also costly. Less access to providers

means more Medi-Cal patients will end up in emergency rooms and leave more conditions untreated, adding to the cost of health care for everyone. In addition, California will forgo federal matching funds by cutting Medi-Cal reimbursement rates. California receives \$1 in federal matching funds for every Medi-Cal dollar spent. This means that the \$544 million in state cuts will have the effect of cutting \$1.1 billion from Medi-Cal.

The health care crisis has been growing for some time and is particularly evident in Los Angeles, where the county recently proposed closing all but one county health clinic and reducing services at outpatient health centers because of budget shortfalls. The latest round of cuts will only make matters worse across the state and is likely to have a dramatic impact on San Francisco's clinic system, as well as on San Francisco General Hospital, St. Luke's Hospital, and others.

The San Francisco Medical Society and the California Medical Association are committed to restoring these cuts to Medi-Cal and remain committed to health care reform for California, if not the nation. We need to educate and encourage patients to join us in our efforts. 

Send Your Message to 2,500 Health Care Professionals

The San Francisco Medical Society offers multiple advertising opportunities ranging from full-page, 4-color display ads to classified ads with discounted rates for members. Please contact Ashley Skabar for more information, (415) 561-0850 extension 240 or askabar@sfms.org.

Steven Fugaro, MD



Music and Medicine

When one contemplates music and medicine, a number of thoughts come to mind. Many physicians possess wonderful musical talent and employ music as an avocation as well as a means of entertaining the less talented among us. The study of the interaction of the brain and music has challenged neurologists over the years. Psychologists have marveled at the effect of music on the mind—not to mention that numerous extraordinary composers have also had significant psychological conditions. (Charles Ives and Robert Schumann are just two examples.) Finally, music has been used as a therapeutic instrument for thousands of years. Dr. Oliver Sacks, the prominent neurologist, regards music therapy as a tool of great power because of its unique capacity to organize or reorganize cerebral function when it has been damaged.

All of these topics are explored in greater detail in this issue of *San Francisco Medicine*. My own experience with music in a medical context was quite recent. I had the opportunity to view music being employed as therapy in the Healing Harp Program at both California Pacific Medical Center and Marin General Hospital. This unique program, sponsored by the Institute for Health and Healing, enables harpists to play in hospital waiting rooms, in the NICU, for cancer patients undergoing chemotherapy, and for patients in their last few moments of life.

In a bed at the end of a ward, a patient lay dying, attended by her family and friends. In the room was a harpist, playing a small portable harp—a 19-string, seven-pound Westover Adian harp. The atmosphere was a far cry from the usual technological bustle of the hospital ward. Instead of the chirps and beeps of the various bedside machines, the lilting sound of harp music floated through the air. As she played lullabies and Gregorian chants, the mood was serene and remarkably peaceful. The patient, who had been agitated and was breathing rapidly before the music began, was by all appearances quite calm. The family members seemed comforted by the tranquil sounds of the harp as they awaited the inevitable.

I was struck by the contrast between this tableau and what we as clinicians usually observe—the somewhat clinical, cold, and institutional end-of-life setting in most hospitals. At a presentation by the Healing Harp Program, Portia Diwa (one of the Harp supervisors) described how harp therapy has helped patients reduce pain,

lower blood pressure, regulate breathing, decrease anxiety, and feel spiritual comfort. She remarked on how often the gentle playing of her harp would result in patients being more comfortable, over and above the effects of pain relievers, sedatives, and tranquilizers.

The rigor of the program is also quite impressive. The Institute for Health and Healing at CPMC offers internships in the Healing Harp Program. These internships require a 500-hour commitment over a one-year period for both training and clinical practice. In addition to playing at CPMC and Marin General, harpists in the program also play for patients at home and in hospice programs (see page 22 for an article describing the role of music in Hospice by the Bay).

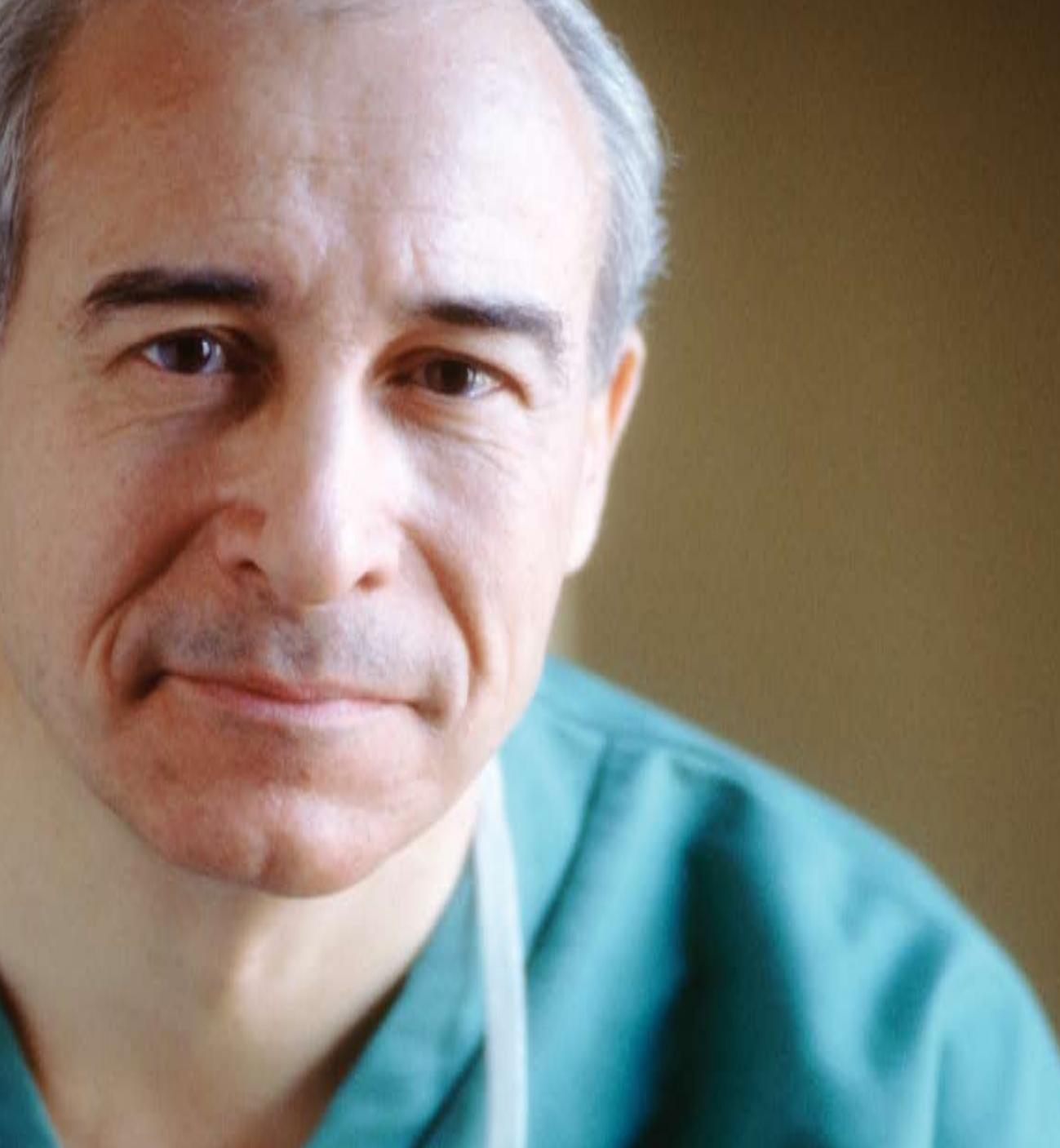
In recent years integrative medicine, with guided imagery, acupuncture, massage, meditation, and music therapy, has slowly begun to achieve a greater level of acceptance in the mainstream medical community. Music therapy, whether with a harp or with other instruments, clearly has a role in helping our patients in ways that are beyond our usual areas of expertise as physicians. And providing music to our patients has the power to augment our most important roles—as healers and comforters.

For more information regarding the Healing Harp Program, please contact Susie Shipley at (415) 925-7623. To find out about music therapy in general, the American Music Therapy Association, at www.musictherapy.org, is an excellent resource. 

Stay Up-to-Date with
[www.sfms.org!](http://www.sfms.org)

Read the SFMS monthly e-mail bulletin, *Action News*, read *San Francisco Medicine* archives, and check the events calendar for upcoming SFMS events and seminars. Visit sfms.org today!

integrity



what drives you?

**A commitment to excellence.
A passion for the art of medicine.
A basic desire to heal.**

Whatever it is that sustains you through the daily challenges of your profession, know that you have an ally in NORCAL.



(800) 652-1051 • www.norcalmutual.com

Call RIMS Insurance Brokerage Corporation at (401) 272-1050 to purchase NORCAL coverage.

Mike Denney, MD, PhD



Music, Science, and Healing

Perhaps the most familiar poetic description of music and healing is found in the play *The Mourning Bride* (1697) by the English dramatist William Congreve:

*Music has charms to soothe a savage breast,
To soften rocks, or bend a knotted Oak.
I've read that things inanimate have moved,
And, as with living Souls, have been informed,
By magic numbers and persuasive sound.*

The phrase “living Souls” in this text refers to the experience of human beings who are “informed” by music. The “magic numbers” refer to Pythagoras, that friend of the hypotenuse, who demonstrated that the sounds of music were produced mathematically, in such intervals as fourths and fifths, in methodical patterns that were pleasing to the ear. This was the beginning of the “science” of music.

Long before objective mathematics and science, however, the subjective pleasing and healing charms of music were practiced throughout the world. Mythological tales, archeological findings, and studies of surviving indigenous cultures all attest to the ubiquity of music as a healing method. In her book *Music Healers of Indigenous Cultures* (2004), Pat Moffitt Cook describes the ancient practices she discovered in her extensive travels to Southeast Asia, India, Nepal, Japan, and North and Central America. A musician and teacher and the founder of Open Ear Center, an organization on Bainbridge Island, Washington, dedicated to cross-cultural music, Cook says, “Healing sounds are part of a ‘sacred therapy’ still practiced among holy men and women, shamans and healers among the indigenous peoples of the earth.”

In Northern India, a man named Babaji, a shopkeeper who was mystically called by a Muslim saint to be an *ojha*, or healer, sings ancient holy melodies, and soon his patient joins in the chant and is relieved of pain, stress, and suffering. In Nepal, Ram Tampa and Suni Ram practice “folk psychiatry” by beating on a two-headed drum, a *dhyangro*, and performing a hopping dance, while around their necks garlands of bells jingle in rhythm. In Haiti, Micheline Forestal, a Vodou *manbo*, or healing priestess, contacts the *myste* by listening to the divine in rocks, trees, plants, rivers, wind, and rain and then leads a group in prayers, songs, dances, and drumming as

rituals to heal the sick. Among the Huichol Indians of Northern Mexico, the *mara'akame*, shaman priests, use peyote to enter into the spirit world and then, with accompaniment of drums, violin, and guitar, sing the *acantos de curación*, songs of cure for individuals, the community, and the earth itself. In Tibet, in the Bon Buddhist tradition, gurus teach the Five Warrior Syllables to bring sound into meditation practices, while others play by hand the Tibetan Singing Bowls for healing.

When modern doctors and other healers try to explain these ancient methods of musical healing, they do their best to apply science, a method that excludes the sacred. In their books and articles, some use loosely defined terms such as “vibrations,” “wave motions,” or “the etheric” to attempt theories by which to impose cause-and-effect measurements upon the immeasurable influence of music within the human body and soul. Others talk in vague terms about “sound essence” and “the healing resonance,” and one author refers to Einstein’s theory of relativity, noting the relationship of energy to mass, thereby concluding that a kind of musical “energy” has an effect upon the “mass” of the body. As though in extension of these scientific “theories,” a recent clinical empirical study by Krucoff et al at Duke Research Institute (2005), which included 748 patients who underwent percutaneous coronary intervention, concluded that there was no effect of music upon clinical outcomes—a conclusion that goes against the collective wisdom of human beings since the beginning of time.

And so it is that, as in this issue of *San Francisco Medicine* we contemplate music and medicine, we may notice a disharmony between the objective, scientific, and mathematical approach to music and the profound subjective *experience* of music within human beings. To integrate this dissonance, we might recall that although Pythagoras began the mathematics of music, he also believed that numbers themselves were magical and sacred. Relating his numbers to the stars, the planets, indeed the entire cosmos, Pythagoras declared mathematics to be “the music of the spheres.”

Thus, in addition to our science, we may give credence to the poetic nature of our appreciation of music and healing, as did William Congreve in 1697, when he said, “Music has charms to soothe a savage breast . . . living Souls, have been informed by magic numbers and persuasive sound.” 

Healing the Healer

The Blues for Docs with the Blues

Roy Rogers, Bluesman

As a professional musician, I have performed around the world for many years now, having played in all types of venues—from clubs to festivals and casual parties to formal affairs. Through it all I have also been fortunate to meet all kinds of people, and I have come to realize the great importance of music in people's lives. In fact, in the truest sense of the word, music can “heal” people.

Many years ago, I performed regularly at The Saloon, a small club in North Beach, San Francisco. It was a classic blues joint. The patrons were from every conceivable social strata, from the regulars (who started way too early) to the never-ending stream of tourists visiting The City from around the world, plus the many music lovers in between. They all came to The Saloon, which is on record as *the* oldest bar in the city. It was truly amazing to see such a wide array of people from such diverse backgrounds come together on a Friday or Saturday night to have a great time.

There were hookers, down-and-out war veterans, housewives, street people, businessmen, and, yes, doctors—emergency room doctors, to be specific. At The Saloon, they were known as the ER Docs. They would come into The Saloon after their long shifts in the emergency rooms. With the music wailing, these Docs let loose. Why? Because they needed to, like everyone else. Often I would talk to them during my breaks, and they would tell me stories about their difficult jobs administering to sick and sometimes dying patients in the emergency rooms of the Bay Area. I cannot imagine a more high-stress job than that of an ER doctor. To have someone's life in your hands is the ultimate responsibility. Everyone can have a “hard day” at work sometimes. But

I can only imagine what a “hard day” in an ER room would be like: traumas of all kinds, accident survivors, gunshot wounds, burn victims, heart attack patients—just to mention a few. Plus people with psychologi-

“One night, one of [the ER Docs] came up to me and said that he just wanted to thank me, because he considered me his ‘therapist.’ I was his ‘healer.’ And although I had never been referred to this way before, I immediately understood what he meant.”

cal problems who come to hospitals because they're sick. And, of course, sometimes the most severe cases never make it out of the ER.

Over the years quite a few ER Docs became friends of mine. On one particular night, one of them came up to me and said that he just wanted to thank me, because he considered me his “therapist.” I was his “healer.” And although I had never been referred to this way before, I immediately understood what he meant.

Now, looking back, I think that the whole scene of the club was part of the healing for most of the people there—not just the music, but the atmosphere, the dancing, the “vibe” of experiencing music in a collective way with a group. I have been fortunate to witness this many times in a variety of places around the world, and it will never get old, that's for sure. It is one

of the reasons I play. Most of all, I still fondly recall some of those rockin' nights at The Saloon, and getting the thumbs-up sign and smiles of approval from those ER Docs. They always kept coming back for their “healing,” I'm happy to say.

I realize now how fortunate I was to understand the power of music at an early age—how it can move people—because I myself was moved by what I heard. For me, it was the blues, and although my musical horizons have expanded, the blues still moves me the most. I am known for a particular style of slide guitar, and with more than twelve recordings of my own, I am fortunate to be able to make the music and tour worldwide. I am no doctor, but I do know that music is a healer, and that the experiencing of it can be therapeutic, as revealed by my doctor friends some years ago. When the music is cookin' and everyone is smiling and dancing and having a great time—they are *happy*, and that is good for them on any number of levels. It must also have something to do with renewal as well as purging some of the “bad stuff” from your mind and body. Ultimately, life is about renewal, is it not? If we don't renew ourselves physically and mentally, we will die. Music can help. It is for us to explore.

I leave you with a line John Lee Hooker and I wrote together for the song *The Healer*: “The blues is a healer all over the world, all over the world. It healed me and it can heal you.” 

A Bay Area native, Roy Rogers is one of the premier slide guitarists performing today. Since his first recording in 1976, his eclectic approach has constantly stretched the boundaries of slide guitar. As a recording artist, producer and composer, he continues to combine diverse music influences to achieve his vision.



Musicophilia

A Feeling for Music

Ashley Skabar

As someone who has been involved in music in some capacity for her entire life, it would be impossible to imagine a world without it. Although, if asked exactly what *it is*, or *why* it is that I feel compelled to play musical instruments, listen to music or hum when I walk, or why I respond to certain types of music rather than others, I could no sooner answer why it is that I breathe, other than to say that it comes “naturally.”

We generally speak of music as though it is something outside of us, something that we take in like air, something that is superfluous to some degree—yet we also refer to “musical” persons and “nonmusical persons,” as well as those with “perfect pitch” and those who are “tone deaf,” which would indicate at least to some degree that music is *within* us, that its hold on us originates from somewhere deep.

To witness the relationship we as humans nurture with this thing called music, one only has to regard the myriads of iPods roaming the streets, the pop songs slipping out of car windows, or the many formalized ways in which we enjoy music and the way that it comes “naturally” for us, as humans, to move our physical bodies in response to melody and rhythm. It is even more curious that we do all of these things unconsciously.

Music, it would seem, is a part of human nature.

“Chimpanzees don’t dance,” stated Oliver Sacks, noted neurologist and author, in a discussion of his latest book *Musicophilia* (2007) at the Palace of Fine Arts in San Francisco in October of last year. “Humans, however, dance to real or imagined music. Music is a mysterious phenomenon. It is entirely abstract, yet has the power to illicit

every emotion imaginable.”

Sacks’ new book seeks to demonstrate our embedded connection with music, through a collection of case studies of persons who have been blessed, tortured, and

“Chimpanzees don’t dance,’ stated Oliver Sacks, ‘Humans, however, dance to real or imagined music. Music is a mysterious phenomenon. It is entirely abstract, yet has the power to illicit every emotion imaginable.’”

tormented by unwanted melody, patients who experience confusion with the perception of music and other senses, persons who have suffered the loss of musical capabilities after injury, as well as those who undergo violent seizures and other music-related maladies. These he explains through neurological connections and disconnections, evidencing our brain’s “natural” musical tendencies, or our inborn “musicality.”

In the preface, Sacks declares that “humans are a musical species no less than a linguistic one. All of us ... can perceive music, perceive tones, timbre, pitch intervals, melodic contours, harmony, and ... rhythm. We integrate all of these and ‘construct’ music in our minds using many different parts of the brain.” (p. xi)

Indeed, whether we practice or compose music or not, these perceptions are more or less present from birth.

“Attention to music ... develops the

brain in a different way than any other form of study,” Sacks stated at the discussion in San Francisco. “You can look at a brain and say, ‘This man is a musician.’”

This begs the question, then, that if our brains are so physically affected by the study of music, what is it in us that determines our musical capabilities, our musical inclinations and preferences? In other words, do we have control over our musical preferences and capabilities, or are these determined by neurology and our biological makeup?

In *Musicophilia*, Sacks states that while “most of us can hope that there may be some harmony, some alignment, between our desires and our powers and our opportunities ... no one has all the talents, cognitively or emotionally.” He continues, “Many of the patients or correspondents I describe in this book are conscious of musical misalignments of one sort or another. The ‘musical’ parts of their brains are not entirely at their service, and may indeed seem to have a will of their own.” (p. 92)

This is evident in the cases in *Musicophilia* in which patients suffer “musical hallucinations,” often hearing imagined music that seems to be originating from some unidentifiable source, as it is also demonstrated in patients with perfect pitch or a natural inclination to musical ability.

One such intriguing case study Sacks details is that of a woman named Diana Deutsch, who writes to Sacks in a letter:

“My realization that I had absolute pitch—and that this was unusual—came in the form of a great surprise when I discovered, at age four, that other people had difficulty naming notes out of context. I still remember vividly my shock at discovering that when I played a note on the piano,

Continued on the Following Page...

Continued from the Previous Page...

others had to see what key was being struck in order to name it.” (p. 125)

To most of us, the concept of perfect pitch, the ability to associate notes with their verbal labels, seems incredible. However, to someone like Deutsch, the phenomenon is not “why some people possess it, but rather why it is not universal. It is as though most people have a syndrome ... which is like color anomia, in which the patient can recognize colors, and discriminate between them, but cannot associate them with verbal labels.” (p. 125)

The notion that there are persons who “naturally” connect musical perception with verbal distinctions is akin to cases in which persons make connections between music and other sensory perceptions. Sometimes, according to Sacks, the parts of the brain that respond to and decipher music also become confused with other senses, a condition known as “synesthesia,” in which a “person may perceive individual letters or days of the week as having their own particular colors; another may feel that every color has its own peculiar smell, or every musical interval its own taste.” (p. 166)

Sacks goes on to describe the case study of the contemporary composer Michael Torke, who experiences what he calls “colored music.” As a child, Torke told his piano teacher that he loved “that blue piece.” Torke has been experiencing this sort of “colored music” as far back as he can remember. “The colors have been constant and fixed since his earliest years and they appear spontaneously.... They seem completely natural to him and preordained. The colors are highly specific. G minor, for example, is not just ‘yellow,’ but ‘ochre’ or ‘gamboge.’” (pp. 168, 169)

These cases serve to, if nothing else, demonstrate our brains’ *dependence* on music; it is almost as if “musicality” is a sort of sixth sense to which we are predisposed.

While a significant portion of our inclinations toward a kind of “musicality”, as well as our musical abilities, seems to be a part of our neurological makeup, Sacks’s book also does much to demonstrate how our brains’ abilities to perceive and recognize music are also altered and strengthened by outside influences, both physical and cultural, very

much in the same way that we are able to increase our vocabularies through study. For example, while “there does not seem to be any innate neurological preference for particular types of music, any more than there are for particular languages, the kind of music to which we are exposed in the formative years plays a role in ‘cultural forms of rhythm deafness.’” (p. 100) Citing a report conducted on music and the developing brain, Sacks explains that “infants at six months can readily detect all rhythmic variations, but by twelve months their range has narrowed ... they learn and internalize a set of rhythms for their culture. Adults find it harder still to perceive ‘foreign’ rhythmic distinctions.” (p. 99) In other words, while we, as humans, may claim to dislike a certain type of music, we may simply, through lack of exposure, be deprived of the neurological tools necessary to decipher “foreign” tonal patterns and rhythms.

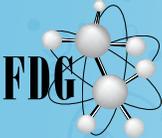
Diana Deutsch, mentioned earlier, has studied the relationship between musical abilities such as perfect pitch and linguistics, to find that those populations that speak a tonal language have a higher incidence of perfect pitch than those of cultures speaking nontone languages. In a study conducted on two student populations, one from the Eastman School of Music in Rochester, New York, and the other from the Central Conservatory of Music in Beijing, Deutsch and her colleagues found that “for students who had begun musical training between ages four and five ... approximately 60 percent of the Chinese students met the criterion for absolute pitch, while only about 14 percent of the U.S. nontone-language speakers met the criterion.” The study found that while there is a relationship between the beginning age of musical study and the incidence of perfect pitch, even as the incidence of Chinese students decreased, students of nontone language

cultures proportionally decreased as well. (p. 127)

Music is, as evidenced by Sacks’s research, a part of our brains and a part of the human experience as much as language, something that may be altered by social influences but that relies in large part on our “natural” capabilities and neurology. Music is inextricable to the human experience; it is a part of all that we do.

In the final chapter of *Musicophilia*, Sacks declares, “One does not need to have any formal knowledge of music—nor, indeed, to be particularly ‘musical’—to enjoy music and to respond to it at the deepest levels. Music is part of being human, and there is no human culture in which it is not highly developed and esteemed. Its very ubiquity may cause it to be trivialized in daily life: we switch on a radio, switch it off, hum a tune, tap our feet, find the words of an old song going through our minds, and think nothing of it.” (p. 347) 

Ashley Skabar is both a published writer and photographer who has written articles on topics of health, nutrition, and current events for various publications. Skabar holds a BA in English Literature and Creative Writing and currently lives in San Francisco, where she works as the Marketing Specialist and Staff Photographer for the San Francisco Medical Society.



Fusion Diagnostic Group, LLC
PET & CT Center, Specializing in Image Fusion
www.fdg-inc.net

High Resolution PET/CT scans

Fusion Diagnostic Group’s advanced technology and software bring evaluation and measurement tools to the Physician to use in the clinical setting. we also have a full time physician on staff.

Mon - Saturday 8-5 + (flexible hours with advance request)

Positron Emission Tomography (PET)
Computed Tomography (CT)
Molecular / Functional Imaging
Accurate & Precise Imaging

1700 California St. #260
California at Van Ness in San Francisco, CA
(415) 921-7226 • 1 (800) 334-0336 • (415) 921-7225 FAX
www.fdg-inc.net

Living with Music

One Musician's Perspective

Nolan Gasser, PhD

In his impressively accessible introduction to theoretical physics, *The Elegant Universe*, Brian Greene enthusiastically summarizes, with a metaphor, the essence of string theory and its unique promise to unify Einstein's general relativity with quantum mechanics: "At the ultramicroscopic level, the universe would be akin to a string symphony vibrating matter into existence." Beyond the pride I feel in reading of Greene's conceptual alignment of the very nature of the early universe and the discipline of music, which is my own life's work, I am struck at just how common such metaphors are. Music as the window through which we can hope to better understand the world—or the universe—appears as old as time itself.

The first well-known exponent of this concept was Pythagoras, the ancient Greek musician-mathematician, who, according to legend, first recognized the inherent link between these two disciplines as manifest in the mathematical perfection of key musical intervals, which were perfect numerical proportions: the octave as 2:1, the fifth as 3:2, and the fourth as 4:3. Such beautiful symmetry was more than coincidence, the Pythagoreans argued, and must be an expression of a higher "harmony"—a Music of the Spheres—where the planets and stars move according to a musical logic, sounding the silent pitches of an endless celestial melody as they make their way around the heavens. From ultramassive stars to ultramicroscopic particles, music seems to make the universe more graspable and relevant to our lives.

The idea that music forms an intrinsic connection to the human body is, like the metaphoric relationship between music and the universe, an ancient one. The sixth-century Christian philosopher Boethius, perhaps the most revered musical author-

ity of the Middle Ages, expanded upon Pythagoras's notion of a *musica mundana* (heavenly music) with the term *musica humana*, defined as the music that runs

"Philosophers have long commented on the 'power' of music in forging our character and connecting our souls to our inner nature, our society, and the world around us. Plato and Aristotle each invested considerable attention in describing the risks and rewards of exposing the young to varying modes (that is, styles) of music."

through the human body, connecting the functions of the flesh with the actions of the soul and spirit.

Similarly, philosophers have long commented on the "power" of music in forging our character and connecting our souls to our inner nature, our society, and the world around us. Plato and Aristotle each invested considerable attention in describing the risks and rewards of exposing the young to varying modes (that is, styles) of music. Perhaps the most enthusiastic philosopher-advocate was Schopenhauer, who saw in music the direct reflection of the Will (the fundamental world-stuff), in contrast to the other arts, which merely reflect their

Representation.

Psychology, too—following an inauspicious start (Freud was famously apathetic toward music)—has invoked music as a unique and vital presence in our lives, with ties to both our early, pre-ego development (e.g., infusing us in an ocean of sound that recalls the womb) and to our collective unconscious, as a link to prehistoric archetypes that may hold a key to our personal survival. Among the most articulate psychologists writing on the subject in recent years is Anthony Storr in such books as *Music and the Mind* and *The Dynamics of Creation*. Storr argues that music is more than a language of emotion but one that synthesizes the inner and external worlds, yet "belonging wholly to neither." It is the stubbornly abstract nature of music—at once intelligible yet untranslatable, to use Claude Levi-Strauss's expression—that, for psychologists such as Storr, raises music to the very pinnacle of human achievements.

Finally, an interest in exploring a more empirically verifiable connection between music and our lives has enjoyed a present-day renaissance, highlighted by the publication and popular success of several recent books, among them Oliver Sacks' *Musophilia* (see review on page 11) and Daniel Levitin's *This Is Your Brain on Music*. Both explore the neuroscientific basis of our fascination with and dynamic response to music, as a significant part of what defines us as human—emotionally as well as cognitively. Dr. Sacks employs his forty years of work as a clinical neurologist to document a wide and fascinating array of cases in which music exhibits a commanding presence in the human brain, producing at times strikingly therapeutic, and in other cases sadly

Continued on the Following Page...

Continued from the Previous Page...

disturbing, responses in patients—often in association with a traumatic event or the onset of a serious neurological condition. Dr. Levitin, a cognitive psychologist and former music producer, has focused his attention on detailing the neurological and brain chemical responses arising from our interaction with music, and especially its significance to our emotional life. His research using functional magnetic resonance imaging (fMRI) to map the neural and metabolic responses to music, moreover, may be seen as but a modern corroboration of Boethius's earlier notion that music triggers a complex interplay between our minds, bodies, and spirits.

Both Sacks and Levitin emphasize the startling power of musical memory: Sacks, for example, highlights cases in which a patient whose mind is wholly ravaged by Alzheimer's disease can still sing a melody learned in childhood, without missing a pitch or lyric; similarly, Levitin cites studies of nonmusicians singing their favorite pop songs with no external aid, matching the pitch and tempo of the original recording with remarkable accuracy. Clearly, music is hardwired into our brains in a manner that defies narrow explanations of auditory reception and memory, lending credence to Sacks's notion that indeed "we humans are a musical species no less than a linguistic one."

While the observations, case studies, and scientific data derived from these inquiries and commentaries are fascinating, they act largely as confirmation of a truth that most of us already know: music is important to our lives and has a powerful effect on us that defies easy explanation. So, what can we do with this knowledge? What actions can we take to enhance the positive role music plays in our lives? How do we best "live" with music?

I am a practicing musician, and my perception of the "power" of music is most keenly derived from my professional experiences with the medium as a performer, musicologist, and composer. From this vantage point, the chief reality I perceive is that music—when conditions are right—is a living force, one that has the potential to transport us from our normal spiritual and

physical confines to another realm, where clock-time disappears and where emotion and intellect merge to the point of being indistinguishable. But the rub, as I see it, is that, like any transcendent experience, feeling the "living force" of music takes work; it is not a passive stimulus, like receiving a massage, but an active dialogue between that which resides within us and that which enters our awareness from the outside. It is a conversation between our expectations, our memory, and the visceral reality of what enters our ears. Even with repeated encounters with a familiar piece of music, the experience is never the same twice, provided we are actively engaged with it.

Many of the writers mentioned above speak of the specific quality of tension and release within a piece of music or a musical performance (as in a jazz improvisation) as a key component of music's emotional and cognitive gravitas. Manifestations of this admittedly vague notion are multiple and vary considerably, from a simple harmonic cadence (e.g., dominant-tonic) to a larger structural progression (e.g., from development to recapitulation in a symphony; from bridge to chorus in a pop song). But whatever the case, the tension must be perceived and the resolution experienced for the full effect to take place. The overriding encounter is one of musical narrative—a concrete progression in "aesthetic time" without a concrete story line, where the "subject" is sound itself.

This is indeed the miracle of music: that tones, rhythms, harmonies, or timbres in succession can have meaning at all, a meaning experienced as it happens, and where precise semantic translation is impossible or irrelevant. When the living musical experience is powerful enough, we can be truly lifted into an altered state, where a resonance imaging of our brain would undoubtedly reveal it as coming alive, triggering a myriad of salutary effects on our sympathetic and parasympathetic nervous systems. In an age of increasing societal and personal stress, not to mention rising environmental risks, a counterbalance of engaged music-listening seems a painless—indeed pleasurable—means to help ward off the prospect of cardiovascular disease or cancer. Think of it as musical exercise.

But once again, it takes effort. The development section of the opening movement of Mozart's Piano Concerto No. 21, for example, contains an extended set of musical sequences, rising one after another, like a huge row of waves slowly making their way to the sandy beach of the movement's primary theme. The effect is amazing if followed intently passage-by-passage, though merely pleasant if listened to casually. To cite another, more obscure example, the Renaissance master Josquin des Prez's six-part motet *Praeter rerum serium* is among the most profound works ever written, and the emotional-intellectual payoff is unrivaled—if the narrative is intently followed; otherwise, it sounds like pretty church music.

Now, to be sure, there is nothing wrong with casual music listening; like a recreational massage, it can be wonderfully pleasant. But with just "pleasant," we will not quite rise to the heady and poetic powers assigned music by the writers noted above. A key ingredient here, of course, is education; the more one knows about music—historically, theoretically, practically—the more one can retrieve during one of those encounters. Perhaps, indeed, when conditions are right—whether "living" with the music of Bach, the Beatles, or Dave Brubeck—we'll glimpse what Pythagoras and Boethius were really talking about: that the heavens, as well as the human body, are made more harmonious by the inexplicable power of music. **sfm**

Dr. Nolan Gasser is a professional composer, pianist, and musicologist, who received his Ph.D. in Musicology from Stanford University, where he has taught as an Adjunct Professor. His compositions have been performed by orchestras and artists around the country, with a performance this month [March 10] at Carnegie Hall. Among his current commissions include a work celebrating the launch of NASA's next space telescope mission, GLAST, entitled Cosmic Reflection, "depicting" the history of the universe. Dr. Gasser is the architect of the Music Genome Project for the popular Pandora music service, and is the Artistic Director of the Classical Archives website. He lives in Petaluma with his wife and two children.

Soothing the Sick with Sound

Music at Stanford Hospital

Greg Kaufman

A middle-aged man enters Stanford Hospital's Cancer Center for a second opinion consultation with the Tumor Board. He has never been to Stanford Hospital before and his apprehension as to what the prognosis may reveal is palpable.

As he enters the building, he is surprised to notice the lack of clinical ambience—it seems more like an upscale hotel than a medical clinic. He walks down the hallway, noticing the waiting areas are warmly lit with flat-screen panels displaying peaceful scenes from nature. He hears beautiful harp music and, as he turns a corner, he sees a musician perched on the edge of a sofa playing her instrument. He approaches slowly and tells her the music is wonderful, and that he's never experienced anything like this in a hospital. She nods, thanks him, and responds she hears that quite often. For a moment, his anxiety is gone.

This is the Stanford Hospital Music Program in action. Its mission is simple: to integrate music as a primary element of the health care offered. Its commitment is to make Stanford Hospital a more comfortable, soothing, and healing environment for patients, family, and staff through music.

And its results are undeniable, uplifting, therapeutic, and personal.

Concerts in the Atrium

The Stanford Hospital Music Program, which is part of Guest Services, was created in 1992 as a weekly concert for patients' family and staff. Since that time, the Music Program has expanded its services. It now provides concerts twice a week in the Stanford Hospital Atrium, plus music six days a week on the units at Stanford Hospital and Lucile Packard Children's Hospital.

Ambient piano, guitar, and harp music in the Cancer Center and weekly concerts for transplant families are also part of the Stanford Music Program. A summer outdoor concert series and an additional ambient piano day were added to the Cancer Center's schedule in June 2007.

"Live music is becoming a regular feature in the life and care of patients and residents in hospitals, homes, hospices, etc. throughout the U.K.," wrote Sylvia Lindsay in the *British Journal of Hospital Medicine*.

"The response to music is intensely individual, depending on many factors such as age, culture, and upbringing," she says. "However, it is evident that music can bring emotional release, revive memories, and act as a means of communication beyond words."

The centerpiece of the Stanford Hospital Music Program is the Bing Music Series. This series provides concerts every Wednesday and Friday afternoon from 12:30 to 1:30 p.m. Open to all patients, visitors, and staff, these concerts are performed by professional musicians covering a variety of genres, including classical, ethnic, jazz, popular, folk, and choral.

The concerts are held in the Hospital Atrium, a large indoor area surrounded by beautiful outdoor gardens and decorated with contemporary artwork. The audience is given a brief overview of the music services available to them, all free of charge, before the concerts start. They are also invited to write down any impressions they have in a comment book provided at each concert to document the positive effects the music has on its listeners.

Music for Recovery and Communication

The effects of the music on patients, their families, and the musicians themselves are heartfelt and moving.

One patient, Anne, was recovering from heart surgery at Stanford Hospital. She became restless after a week in bed. But throughout her stay, there were two bright spots in her week: visits from her family and the twice-weekly concerts.

Every Wednesday and Friday at 12:30 p.m., Anne looked forward to a professional ensemble performing in the Atrium, a large public area on the ground floor surrounded by outdoor gardens viewed through large picture windows. On this day it was Eric & the In-Crowd, a wonderful jazz and pop standards band that has been performing at Stanford for nine years. Eric had recently been named "Piano Man '07" by *San Francisco Magazine* and his booking calendar was full, but he always made time to perform in the Bing Music Series at Stanford Hospital.

Eric had seen firsthand the benefits his music provided the attendees. His attitude was mirrored by most of the performers who are a part of this series. They see the difference it makes to bring live music to a healing environment.

Jeff Buenz, one of Stanford Hospital's house musicians, relates this story: "As I walked onto the unit, a nurse asked me 'if I could play for the girl in room 33.'

"I went to the room and saw this little girl, perhaps five or six years old, crying and screaming alone in her bed. As I began to play calming music, I could immediately see her crying turn to whimpers, then silence. She then lay still and simply stared at me as I continued to play.

"The nurses gave me a thumbs-up," Jeff
Continued on the Following Page...

Continued from the Previous Page...

continues, “and I knew that the music had been a positive force for this little girl.

“When I finished the first piece, I asked the girl if she liked the music. She stared at me for several seconds and then gave a barely visible single nod of her head. I started playing ‘A Whole New World’ and asked her if she knew the piece. She continued with her contented stare.

“It’s so beautiful to experience the magical way music can calm someone. She never took her eyes off me as I played several more familiar songs for her, including ‘Under the Sea’ and music from *Toy Story*.

“I played for another fifteen or twenty minutes. As I got up to leave, she nodded two times without further expression.”

The other five house musicians’ stories related similar calming effects on their listeners, regardless of age, nationality, or even musical tastes. Examples of stress and anxiety reduction experienced by patients, families, and staff are cited through their anecdotes—as are other important benefits, such as helping with end-of-life transitions, providing motivation, and improving communication.

Many of the comments revealed the profound effects the attendees experienced while listening to the music, from temporary relief of their depression to cathartic resolution in accepting their condition or that of a family member.

Stanford Hospital contracts six musicians who perform throughout the hospital six days a week. They provide ambient music in waiting or admitting areas and also

visit bedside to perform for patients who are unable to attend a concert or who just prefer the privacy of a live musical experience. The musicians will often develop a relationship with long-term patients, and many of these patients cite the healing and stress-reducing effects these visits bring.

Solace at the End of Life

The musicians are often requested to assist during the dying process, their presence bringing solace to the patients and their families.

“One day, as I was walking through the back hallways, I saw Susan, one of the chaplains at Stanford Hospital,” says harpist Barbra Telynor. “Susan explained to me that there was a group of family members gathered in a nearby room, saying goodbye to their loved one, who was critically ill. I asked Susan if they would like to have some music.

“After I set up in the room, I played quietly in the corner as family members took turns holding their beloved’s hand, wiping his brow, kissing him on the forehead. A few days later, Susan and I met up again. She said the whole family had expressed to her how helpful and supportive the music had been.”

While no situation is typical, patients and their families are consistently appreciative of the music and its positive effects.

The benefits of music in a healing environment have long been recognized in many cultures, and programs like Stanford’s are gaining popularity worldwide.

The Importance of Live Performance

“Experience has shown that a live performance is infinitely more valuable than the finest recording: it enables the listener to cross the line between just hearing something and becoming totally involved in the more active pursuits of listening and participating,” writes Lindsay in the *British Journal of Hospital Medicine*.

“At Coppercliff Hospice, Brighton, a member of staff stated, ‘I believe we underestimate the value of music.’ The positive results thus far have made all the staff aware of this and of the need for us to provide more music. Live artists provide that special atmosphere,” writes Lindsay.

An important feature of a live performance is the visual aspect, watching instruments being played. Of equal significance are the warmth, communication, and presentation skills of the musicians, who are able to move within the audience, adjusting the music at a moment’s notice and singing or playing individual requests.

Music reinforces a sense of time and place, increases physical output, stimulates those who lack motivation, and brings relaxation.

With the generous support of donors and sponsors, the Stanford Hospital Music Program will continue to provide these most important services to its patients, staff, and visitors. 

Greg Kaufman is the director of Stanford’s music program.

WELCOME NEW MEMBERS!

The San Francisco Medical Society would like to welcome the following new members:

ACTIVE REGULAR MEMBERS

Paul Abramson, MD—Online Application

Roderick Pettis, MD—Online Application

*Allan Treadwell, MD—Online Application
Referred by Steve Fugaro, MD*



The Power of Music

The Transformed Moment

Susan Mazer

Philosopher Alan Watts described music as “an expanded present.” He had a “thing” about time, about how we experience it, manipulate it, and can use it to gain some semblance of control in a life uncontrollable, and to find peace amid chaos. Perhaps that is part of what inspired me, as a musician, to look past the notes and melodies, the harmonies and phrases, to the way music changes the way we breathe, the space in which we find ourselves. Few of us have not experienced that magical moment after the last note of a song or symphony fades into the air, when all of life holds its breath and sighs in ecstasy. It is in that very moment, that experience of timelessness, of selflessness, when we are one with the moment, that, perhaps, “healing” is evidenced.

If experience counts as evidence and if evidence can be described as much as measured, then my many decades as a harpist have reinforced this most powerful role music plays for most of us: changing time and space, altering the moment, taking our minds away from where we are sitting, removing for a brief time our deepest fears, replacing them with serenity, and unburdening us from our anxiety and concerns, if only for a moment.

Following a full-time career as a performing musician, I moved into health care, hoping that this magical moment might be possible if the environment were created appropriate to the needs of patients. It was not a straight-line process, however. My husband, Dallas Smith, and I performed on oncology units, in emergency rooms, on med-surg floors, and in hospital lobby waiting areas. All of these events were only events. We remained concerned about what happened when the music stopped, when we

were not there at 3:00 a.m.

Music and medicine have been partners for hundreds of years. Beginning with the Aesclepien temples, where the “high tech” of the day included alchemy, prayer,

“Few of us have not experienced that magical moment after the last note of a song or symphony fades into the air, when all of life holds its breath and sighs in ecstasy. It is in that very moment, that experience of timelessness, of selflessness, when we are one with the moment, that, perhaps, ‘healing’ is evidenced.”

nature, music, and drama, the history of medical care has been one that shows the relentless search for effective methods by which physicians can relieve the suffering of their patients and, through miracles not always understood, diseases could be conquered or, at least, survived.

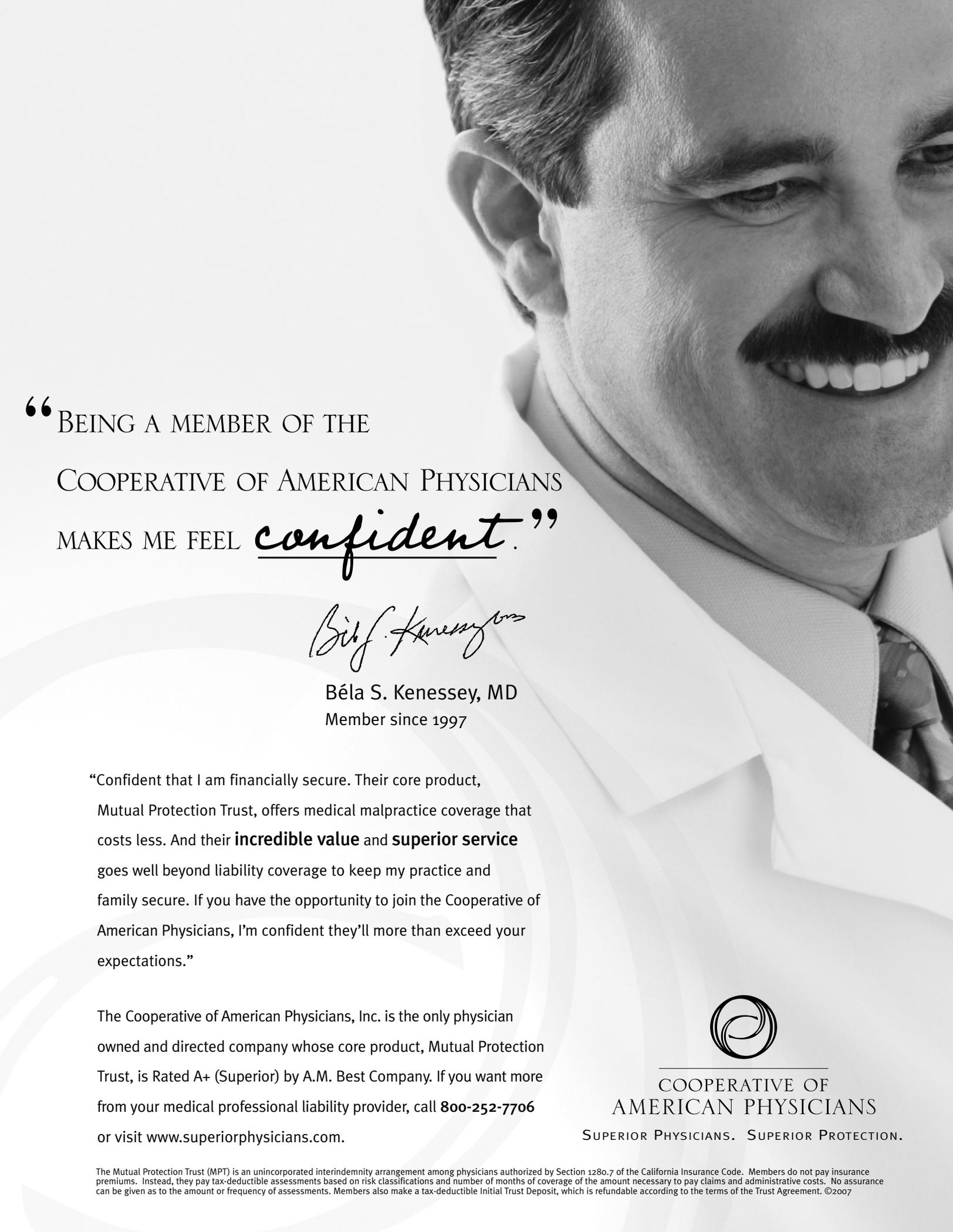
Today’s evidence-based medicine demands science as the sole basis for practice. Nonetheless, when we consider any of the arts, science relying solely on quantifiable measures may be at odds with itself, in part because the human process seems to reveal itself in implications and ambiguities rather than absolutes. The strong push for using complementary and alternative methods to support positive clinical outcomes has

opened the door to revisit the means that patients have used for centuries to comfort, soothe, remedy the symptoms of stress and anxiety, improve quality of living, and enhance physical capacity to fend off disease and illness.

Music therapy researchers have provided more than fifty years of scientific data regarding the positive effects of music on relieving pain, reducing stress, improving immune system response. Sixty years of data have shown that using music as a partner to other clinical protocols renders improved effectiveness, relieves anxiety, and enhances recovery—and that neither method negates the other. Major health care centers of excellence, such as Stanford University Medical Center, UCSF Medical Center, Kaiser Permanente Hospitals, Oakland Children’s Hospital, Johns Hopkins University Medical Center, and Scripps Hospitals and Clinics, include music, art, and other humanities-based tools to improve patient experience and outcomes. M.D. Anderson Cancer Center has a notable and recognized arts program. University of Pittsburgh Medical Center partners with the Pittsburgh Symphony and its members to bring concerts into the hospital on a regular basis.

All of these programs are episodic, when a musician or music therapist works with a patient for a specific amount of time. It was because of the effectiveness of music for patients, and the fact that their needs were not limited to one time of day at one particular hour, that we looked at providing a tool that would bring music to the bedside to be available whenever the patient wanted or needed it.

We noted also that there are ongoing challenges with patients being separated
Continued on Page 20...



“BEING A MEMBER OF THE
COOPERATIVE OF AMERICAN PHYSICIANS
MAKES ME FEEL confident.”

Béla S. Kenessey, MD

Béla S. Kenessey, MD
Member since 1997

“Confident that I am financially secure. Their core product, Mutual Protection Trust, offers medical malpractice coverage that costs less. And their **incredible value** and **superior service** goes well beyond liability coverage to keep my practice and family secure. If you have the opportunity to join the Cooperative of American Physicians, I’m confident they’ll more than exceed your expectations.”

The Cooperative of American Physicians, Inc. is the only physician owned and directed company whose core product, Mutual Protection Trust, is Rated A+ (Superior) by A.M. Best Company. If you want more from your medical professional liability provider, call **800-252-7706** or visit www.superiorphysicians.com.



COOPERATIVE OF
AMERICAN PHYSICIANS

SUPERIOR PHYSICIANS. SUPERIOR PROTECTION.

The Mutual Protection Trust (MPT) is an unincorporated interindemnity arrangement among physicians authorized by Section 1280.7 of the California Insurance Code. Members do not pay insurance premiums. Instead, they pay tax-deductible assessments based on risk classifications and number of months of coverage of the amount necessary to pay claims and administrative costs. No assurance can be given as to the amount or frequency of assessments. Members also make a tax-deductible Initial Trust Deposit, which is refundable according to the terms of the Trust Agreement. ©2007

Music Therapy at Langley Porter

The Union of Clinical and Musical Skills

Tom Benson, MT-BC

In the days after the Second World War, many veterans suffering from what we now know as Posttraumatic Stress Disorder (PTSD) found themselves hospitalized under psychiatric care in Veteran's hospitals throughout the country. Starting in Kansas and then elsewhere, musicians began visiting these hospitals, playing live music for the veterans. The positive physical and emotional responses were quickly noted by doctors and nurses, who called for musicians to be hired for this purpose. Soon it was clear that these musicians required additional training to more fully understand and respond to the conditions of their "audiences," and thus the profession of music therapy was born, eventually organized into the American Music Therapy Association (AMTA).

Because music therapists are musicians first, the academic training of music therapists occurs under the auspices of university music schools. Rigorous academic musical training is later paired with training in therapist and clinical skills. This focus on musicianship is key to what makes music therapy work so well. In light of the profound physiological, emotional, social, cognitive, and behavioral responses that music can elicit, a music therapist will always be keenly interested in bringing excellent-quality musical experiences to his or her patients. In his recent book *Musicoophilia*, Oliver Sacks beautifully describes some of the profound effects of music on a variety of conditions. It has been said that when good music is used by a music therapist, "there is a second therapist in the room."

Music therapists are held to the high standards of clinical care required for board certification (MT-BC). The profession is accumulating a growing and convincing

body of research literature (posted in the *Journal of Music Therapy* and elsewhere) to support music therapy practices as evidence-based and founded in research. Nevertheless, the actual implementation of music therapy brings out the highly individualized creativity and musicianship of each music therapist. Thus, music therapy will never look the same twice.

As a music therapist in a psychiatric hospital, I am personally predisposed to the metaphorical qualities of the weather for musical inspiration in caring for my patients. There's something about the many different kinds of rain, for example, that powerfully connects with the difficult emotions and thought patterns that bring patients into our care. "What kind of rain is most welcome to you?" "What kind of weather best describes your inner life today?" As I sit with a group of patients struggling with depression, isolation, or even suicidal tendencies, I might introduce them to a simple chant while I play the guitar: "Hear the rainstick sound, tumble all around. . . ." and then pass the Native American rainstick around the circle. One patient creates sounds of a thunderstorm, another creates a steady drizzle, yet another creates a gentle sun shower. Soon the members of the group are rising above their isolation and inner distress, coming to life in mutual recognition and support brought about by their collective creative



and musical expressions. Patients begin to wonder, "How is it that I'm able to change my emotions and thoughts through such a simple musical activity?" In the ensuing discussions, they explore ways of creating such therapeutic change in their lives outside of the hospital as well.

Again I turn to the rain, this time with the help of Johann Sebastian Bach, specifically the tender and sweet Largo from his Concerto for Two Violins. A wonderful music therapy intervention is to use guided imagery with music, and the music of Bach can be the best for this purpose. I'll invite the patients to sit comfortably and relax their bodies. Then I'll start the music. As the melody lines of the two violins intermingle and dance around each other, I suggest that the patients allow their minds to fill with images and sensations (sounds, smells, tactile experiences) of a cleansing, healing rain that washes away distress, worries, or anything that they would like to let go of. When the imaginary rain lifts, they are invited to visualize where the music would take them once the sky has cleared, and then to write

Continued on the Following Page...

*Music Therapy at Langley Porter
Continued from the Previous Page...*

down or draw what they felt, thought, and discovered. The immediacy and depth of these kinds of musically generated experiences give the patients a wealth of material to explore in the subsequent group therapy process as they struggle with finding ways to make new beginnings, learn fresh skills, and build hope.

Because my cotherapist, music, is so good at drawing patients into healing experiences, my role as music therapist is to know the patients and their conditions well, so that I can set up musical experiences to allow music to do its work. Maybe we'll sit around a table-sized gathering drum and play together to ease patients out of their isolation; maybe we'll listen to a song and discuss how the lyrics and emotions relate to struggles in our lives. Maybe we'll improvise together on a collection of xylophones to strengthen the experience of being truly in the reality of the present moment and fully attentive to each other. Maybe we'll sing or chant together to rebuild trust, lift spirits, or notice the healing and anxiety-reducing effects of filling our lungs deeply for song.

So the next time you might be feeling like a "rainy day," see if you can get your hands on a recording of Bach's Largo from his Concerto for Two Violins (or another piece of calming instrumental music to soothe the soul). Relax in a comfortable chair and let the music awaken in you images of soothing, cleansing rain. You can decide if you'd like your visualization to include an umbrella or not. **sfm**

Tom Benson received his bachelor's degree in Music Therapy from Michigan State University. During his studies, he interned at Langley Porter Psychiatric Institute in San Francisco. He went on to become a board-certified music therapist and to receive a Guided Imagery and Music (GIM) Level I and II certification. He has worked since 1993 as a music therapist and as the training director of music therapy at Langley Porter Psychiatric Hospital and Clinics at UCSF.

*The Power of Music
Continued from Page 17...*

from the familiar, finding themselves in a hospital room that is laden with technologies over which they have neither control nor understanding, pillows and blankets that are not theirs, surrounded by people whom they do not know. Research has shown that nature is universally familiar and comforting across generations and ethnic or religious backgrounds.

Therefore in 1992, using the television as the delivery system, we started producing the CARE Channel, which includes instrumental music and nature imagery over the full twenty-four-hour day. A closed-circuit television channel, the CARE Channel is available for the patient when needed. It has, from its beginnings, been based on research regarding music, imagery, the required pacing of the day-night cycle, and the value of positive distraction in mitigating pain and anxiety.

Unlike commercial music programming, music on the CARE Channel is original and selected based on the needs of patients to experience minimal stress. Further, the channel has been developed from the outset to transcend issues of age, gender, ethnicity, religion, and culture. Rather, we have looked at the nature of "patient-hood" as universal.

Our hospitals now number almost 400. Many have arts programs, live music, and use the CARE Channel as an environmental component to hold the hand of the patient when the staff is not there. The programming is day- and night-sensitive, uninterrupted, and provides a virtual window to the outdoors.

The stories that come back to us from patients are varied. One woman wrote that her mother was in the emergency room and, in seeing images of a rural lake with ducks, began talking about her childhood. This was a welcome shift from the panic she had been experiencing. The use of the CARE Channel for palliative care, for pain management, and to improve restfulness and sleep has been told and retold. Nonetheless, its availability at the bedside does not dictate how a patient might use it, when, or what it will mean to each one of them. In fact, the outcome is not always the motivation for its use. A patient

may love the nature and be neutral about the music; another may be too ill to watch the television monitor; one may watch it as the last defense against commercial banter. And yet, the outcome is the outcome: patients feel better for reasons unknown.

What does this say about evidence-based medicine? It says that evidence is made obvious in more ways than merely cellular investigation. The very core of being human carries with it strengths of the whole interaction of mind, body, spirit, relationship, and sensory response to caring that is experienced through the arts and music and that may not be accessed only through pharmaceutical modalities.

The many anecdotes that describe how the CARE Channel has been viewed, whether the focus was the images or the music, include measurable outcomes reflecting positive patient experience. Whether patients are in need of less pain medication or they can sleep without sleeping aids, whether an elderly agitated patient calms down without restraints or an Alzheimer's patient is able to focus on mountains and streams rather than wander, the effectiveness of nature and music to create an environment of its own, to transform a hospital room into a therapeutic space and the endless moments of suffering into moments of peace—all of these are as real as any other kind of pharmaceutical intervention. More powerful, however, is the fact that the arts (whether through the CARE Channel or a live performance) embrace and mobilize the consciousness of patients and families, putting the power of healing back into the hearts and spirits of those for whom cure may or may not be possible. **sfm**

Acknowledged as a pioneer in the use of music as environmental design, Susan Mazer is the President and CEO of Healing HealthCare Systems (www.healinghealth.com) and produces the CARE Channel. She is a classically trained jazz harpist, having done her graduate work at Stanford. In her work in health care, she has authored and facilitated educational training for nurses and physicians and is well published in the field of the effects of noise on patients. In March, she will be speaking at the second annual Environments for Aging conference in Tucson, Arizona. She can be reached at smazer@healinghealth.com.

Healing Muses

Adding Sound to Silent Technology

Eileen Hadidian

In 1994, I received the diagnosis so many women dread: breast cancer. The prognosis, however, was excellent and various treatments kept things in check for three years. But in 1997 it returned with a vengeance, having jumped from Stage I to Stage IV metastatic cancer. Tests confirmed that the cancer had spread to the spine and ribs. Had I believed the medical statistics, this Stage IV diagnosis would have shortened the remainder of my life to eighteen months.

Ten years later, I continue to beat those odds because I knew then that my life was not over—in part because I had a loving husband and a young daughter I wanted to see grow up and launch on her life's path, and in part because of the work I do with healing music. As I see it, doctors are technicians; they can save our lives using emergency medicine. But as far as maintaining our life, or improving its quality, we as patients have a large role to play.

In my own struggle with cancer, I have used a wealth of alternatives. In addition to mainstream treatments, I rely on a combination of nutritional therapy, traditional Chinese medicine, and Tibetan medicine. As a professional musician who plays recorder, wooden flutes, and some Celtic harp, I turned to music right from the start as part of my healing process.

From the time my surgeon supported my wish to have soothing music in the operating room, my experience with cancer, combined with my natural curiosity, has led to the germination of projects that combine music and healing. Convinced through reading how music could be used to help people with life-threatening illness by alleviating some of the discomfort and pain, I became an advocate and practitioner of music as a healing art. With Natalie Cox, a professional concert and

Celtic harpist, I founded Healing Muses and set up a pilot program at Kaiser Permanente Medical Center in Oakland, bringing music to the hospital floors and lobbies of two buildings. Celtic harpists Maureen Brennan and Patrice Haan have since joined the team.

In 2002, Healing Muses became a non-profit organization. The program's intent is not to try to cure the physical body but rather to heal on emotional and spiritual levels. We have repeatedly seen Healing Muses' music relieve anxiety, diffuse pain, and encourage relaxation during stressful hospital stays and procedures. I am continually awed by the power of music to soothe and calm agitated patients in comas, to shift noisy hospital floors to lower decibel levels, and to act as a sedative with no negative side effects.

Music can be either stimulative or sedative. Stimulative music has an assertive rhythm that elicits reactions: hand-clapping, toe-tapping, dancing. In working with patients who are recovering from a major trauma, such as stroke, music with a pronounced rhythm is often preferred. It stimulates the heart rate, increasing metabolism, pulse, blood pressure, and muscular energy, and it may provide exactly the energy some people need to build better health. By contrast, sedative music is slower and more soothing: It has an easy, flowing melody, a slow tempo, and no major changes in pitch, dynamics, or rhythm. It has a calming, anxiety-reducing effect, even when the listener is unconscious, and it reduces levels of adrenaline and other stress hormones.

In this practice, the ultimate goal is entrainment, a process intended to synchronize the patient's vital signs with the music. Before playing for a room full of patients, we gauge their energy. If they are agitated, we start with faster-paced music that matches their

mood, gradually slowing it down to allow their vital signs to stabilize. On the other hand, if the energy is low and people need to be invigorated, we start with slow music that echoes their mood, then gradually pick up the speed. Our repertoire includes medieval, Renaissance, and Celtic music, American folk songs and spirituals, and music from different world traditions. We avoid dissonant twentieth-century music and the more bombastic Romantic composers, focussing on beautiful, simple melodies from a variety of cultures. We study how different music affects people differently, and we group sets of pieces to create a healing environment.

Healing Muses' goal of bringing music to medical settings has gotten support from a number of administrators and health professionals, including my surgeon, Dr. Richard Godfrey, who says that adding music to the "silent technology" of modern medicine can "awaken the positive forces of healing that come from within." Many administrators agree that the music benefits staff as much as the patients.

We never know whom our music will touch. For every person who comes up and talks with us, there are all those others who pass by, anxious or frantic, who may be soothed by the sounds of our playing. All the Healing Muses concur that their music appeals to a broad range of people. Patients or their families often ask about the instruments we play; staff sometimes request that we play for a particular patient who loves music. Patients in the laboratory say that their blood pressure readings are lower on days when we play there.

The spiritual power of music can be especially useful to people facing the transition between life and death, and it can help the

Continued on Page 23...

Enriching Hospice Care

Music at the End of Life

Kris Montgomery

“Music and rhythm find their way into the secret places of the soul.”—*Plato*

Humans have long recognized the significant effect of music in our lives. That’s why hospices around the country, including the Bay Area’s own Hospice by the Bay, are now using music to enrich the lives of patients with serious illnesses. To add depth and value to its care of patients and their families in Marin, San Francisco, Northern San Mateo, and Sonoma counties, Hospice by the Bay (formerly Hospice of Marin) added musical activities to its volunteer Patient and Complementary Care program four years ago.

“Studies show that musical activities and massage are the two most popular forms of complementary services,” says Mary Taverna, Hospice’s president and CEO. “We want to offer our patients a rich range of care options to make their remaining time the most meaningful and comfortable possible. We also want to comfort their families during a difficult time of life—music helps provide some comfort.”

Brain wave studies suggest that even nonresponsive patients and those who are actively dying can hear sounds, indicating that hearing may be the last sense lost before death. A review of several studies about the efficacy of music therapy in end-of-life care shows that both seriously ill and dying patients experience positive changes in pain levels, physical comfort, fatigue versus energy, anxiety versus relaxation, time and duration of medical treatment, mood, spiritual well-being, and quality of life (see Russell E. Hilliard, “Music Therapy in Hospice and Palliative Care: A Review of the Empirical Data,” in *Evidence-based Complementary and Alternative Medicine*, April 2005). Stan

Goldberg, a Hospice by the Bay Patient Care volunteer who has been playing flute music to hospice patients for more than three years, says, “There are different ways to reach a patient: words, therapeutic touch, and other forms of nonverbal communication. Sometimes when nothing else works, music does.” Goldberg cites Daniel J. Levitin’s book, *This Is Your Brain on Music*, which theorizes that music taps into a part of the brain that doesn’t require interpretation to communicate, as words do, and that allows a direct connection to feelings.

Cheryl Wilkins, the volunteer services manager who oversees the Patient and Complementary Care program, says that musical activities were added to Hospice by the Bay’s program after requests from its clinical staff, who saw the benefit of offering a variety of modalities to enhance the lives of patients and families. Currently, several Hospice volunteers play in hospitals, residential and nursing facilities, and patients’ homes in Marin and San Francisco. Some have training in the use of music to heal and comfort those with terminal illnesses; others are trained Hospice volunteers who offer their musical talents as an extra gift to clients.

After the first “music thanatology” program opened in 1973, teaching the use of live harp music in the care of the dying, interest grew in using music as medicine. Hospice by the Bay volunteer Barbara Rose Billings is certified by the Bedside Harp program in Pennsylvania. She now teaches in the Healing Harp program at San Francisco’s Institute for Health and Healing at the California Pacific Medical Center, where another Hospice volunteer harpist, Judith Taussig, is an intern.

Many of the musicians feel they were “called” to play music to those with life-

limiting illnesses, some after a health crisis of their own or a loved one’s. Billings says that playing for her father during his last illness caused her to see the value of the harp when someone is sick or dying. She says, “When you play to someone who needs healing, music can help speed that healing. When playing to someone who is dying, you frequently see peace come over them. I feel privileged to be with individuals during this sacred time.”

The volunteers agree that music can calm both those with illness and the “worried well.” Taussig recounts a visit to a cardiac patient: “Her granddaughter told me her grandmother had been very anxious, and she hoped the music would soothe her.” While Taussig played, the granddaughter watched the heart monitor. The granddaughter wept with joy as it showed her grandmother’s heartbeat slowing as she fell peacefully asleep.

When playing, the musicians watch the patient’s breathing and facial expressions for a response. Often they play steady, rhythmic sounds, “sometimes even just a single, soft tone,” says Taussig. It’s best to keep the music simple, Billings notes. “You wouldn’t carry on long conversations with someone whose systems are shutting down either. You’d just use simple words: ‘I love you.’ ‘You can let go.’ ‘I’ll be fine.’”

Several of the musicians improvise as they play, watching to see what sounds the patient responds to. Called to play to a patient who was dying, very weak, and in pain, Goldberg played the flute for many hours over two days. Goldberg watched the man’s face and posture relax. He said to the patient, “It looked like you were taking a trip somewhere while I was playing.” The patient smiled, saying he had indeed taken a trip to a “special private place,” carried there by the music.



Volunteers also offer music as a form of companionship, especially for patients whose family can't always be present. "It's a way of being with a patient when small talk feels silly," says Cinder Ernst, a Patient Care volunteer who plays guitar and sings for her patients when they request it. Some of her patients ask for a specific song and sing along. Others listen quietly or with their eyes closed, as the song or sounds can evoke deep feelings—happy memories of good times, or grief about their illness—feelings that the Patient Care volunteer can help them express and explore.

Families and medical staff also report benefit from the volunteer's music. Taussig was called to play at the bedside of a patient in the hospital whose family members had made the difficult choice to disconnect their father from a ventilator. She played for more than an hour, as the family said prayers and their good-byes. She continued to play after nurses disconnected the patient's breathing tube and the monitors went flat. She says, "The family was grateful that I was there to create a soft human atmosphere during such a sad time."

Unlike core hospice services, Complementary Care offerings—including music, massage, energy work, and animal visits—are not reimbursed by health care insurance programs. Financial donations from community members and corporate partners to the nonprofit Hospice by the Bay Foundation support the program. **sfm**

Hospice by the Bay, which has been serving Marin, San Francisco, Northern San Mateo, and Sonoma counties since 1975, is a 501(c)(3) nonprofit organization dedicated to ensuring that all who need hospice care and services receive them. Through its community grief support program, Hospice by the Bay also serves people whose lives have been altered by the loss of a loved one. Hospice by the Bay programs are funded through health care reimbursement and financial donations from community members, businesses, and corporations to the Hospice by the Bay Foundation. For more information about Hospice by the Bay services or how to support our work, call (415) 927-2273 or visit www.hospicebythebay.org.

Healing Muses

Continued from Page 21...

dying let go in relative peace and acceptance. As my good friend Susan was dying of breast cancer, I began to play my Celtic harp for her one afternoon a week and witnessed the power of music to soothe. The first week I went to Susan's home, she was conscious, confined to her bed, surrounded by caretakers and their incessant talking; she seemed very tired of the constant input. I asked people to leave; as soon as I started playing, Susan's eyes closed, her breathing became slower, and she rested quietly for the next two hours, occasionally opening her eyes to ask for a favorite piece.

The last time I played for Susan, there had been a shift in her condition; she had moved inward and stopped eating and responding. She had also been very agitated, not wanting anyone to touch her or administer anything, whether fluids or medication. As soon as the music started, she calmed down and rested deeply for the next few hours. Her caretakers occasionally came in and commented that this was the first time in twenty-four hours she had been so calm. Moving the music away from regular rhythm and words, like the fluidity of medieval chant, my voice became another instrument, along with the harp. Early the next morning, Susan died peacefully.

Fellow Muse Patrice Haan also shares some of her personal experience with healing music.

"Often I enter the hospital full of hope, yet with some trepidation that I will be able to ascertain what is appropriate in this moment and situation. And so it was the morning I went to play for my friend who had had major spinal surgery and was recovering on the surgery floor. I knew the music would speak to her even in her slumber, and that it would speed her healing, but how would the staff feel in that busy, highly charged environment? Approaching the nurses' station, I told them I had come to play for Eileen and could be either in her room or just outside the door. The closest answered with a half-nod that I could do what I wanted provided I stayed out of the way.

"Peeking into Eileen's room, I saw she was sleeping fitfully, tossing a little but deeply sedated. I set up my harp outside her room

and began to play quietly. Almost immediately, the family in the next room came out to see what was going on. 'Is this heaven,' they asked, 'where there are angels playing harps?' Another family walked down the hall to offer thanks for the peaceful effect of the harp. The noise at the nursing station began to reduce from slamming clipboards, rattling carts, and loud voices to a quieter, calmer level of activity.

"After playing for an hour and a half, I checked on Eileen to tell her I was leaving for the day. I noticed she was breathing a little more easily, although she was still deeply sedated. As I packed the harp to leave, one of the nurses called out to me, 'You should come every day. I started out this shift feeling very tense and now I am more relaxed.'

"Another day I was playing in the lobby of one of the big hospitals—a hub of activity, central to the entrance, laboratory, information desk, gift shop, waiting room, and cafeteria. Chairs lined the open walls and a parade of people passed by my harp. An older woman in a windbreaker stood nearby, listening intently, her eyes averted, with tears streaming down her cheeks as I played several songs. Finally she came up and grasped my hand, telling me that her husband was upstairs dying. 'I just needed a moment to collect myself and had no idea you would be here. I have not cried before, but now I feel that my heart can bear what will come.'"

In some senses this way of offering music is closer to its original intent in traditional cultures—as a ritual and tool used by healers and spiritual leaders. The musician becomes a vessel through which the music flows. This is not about performance, competition, or product, but about process and service.

While music is no cure-all, research shows that this natural therapy has a remarkable variety of healing benefits. Hospitals, hospices, nursing homes, and a variety of health care professionals are now using music, both recorded and live, as a regular part of their programs and treatments. **sfm**

Many thanks to Patrice Haan for her contributions to this article and for her editing assistance. Healing Muses gets its support from donations, small grants, CD sales, and matching funding from the sites it serves. To find out more about Healing Muses, please visit its website at www.healingmuses.org.

The Threshold Choir

Singing to Assist Transitions

Kate Munger

The inspiration for the Threshold Choir came one day in 1990 while I was caring for my friend Larry, who was comatose yet restless, dying of HIV/AIDS. All morning, I washed dishes, weeded his garden, and organized his quilt fabrics. All afternoon I sat by his bedside and sang the same song over and over again, for hours. As I sang, we both became calmer. At the end of the afternoon, I was sure I had given him a gift—a gift that had come from the deepest and most essential part of myself. As I reflected on the experience, I wondered if other singers might want to give and receive that same kind of gift. After reaching out to friends and other singers, I discovered that there were, indeed, many who were interested in tending to the dying this same way, and so began the Threshold Choir.

Today, as we approach our eighth anniversary, there are fifty-two Threshold Choirs across the country performing this healing service. These choirs honor the ancient tradition of singing at the bedsides of people who are struggling, some with living, some with dying. We sing for a diverse group of people: those who are feeble or in coma, those with end-stage disease, newborns just opening to the world, and women who are incarcerated.

In December 2007, our Threshold Choir, headquartered in Inverness, California, was asked by an attending nurse if we could hurry over to a nearby home and sing for a family whose baby, named Violet, had just died at the age of two months.

“Yes, of course,” I said, and immediately called Pamela, who had sung with the choir five years ago and herself had lost an infant son. Then I called Laura, a lawyer and psychotherapist in San Francisco, who al-

ways seems to have the precious few minutes to share for the sake of our singing.

When we arrived at the home, the mother, father, and uncle greeted us. The dad was Middle Eastern and the mom and her brother were from Germany. Baby Violet’s tiny body was in the bassinet in the center of the living room, wrapped tightly in a blanket surrounded by rose petals and soft toys. We sat close to Baby Violet and started with the St. Francis Prayer—softly, so softly.

“May I be an instrument of Peace...”

For more than thirty minutes, we sang the simplest songs at our softest tone. The family sat together on the couch, each one weeping and holding the others. The father’s huge tears tumbled down his cheeks.

It was a tremendous honor to give this family a way to express their grief and to honor their baby and her short life. As we finished, Mom asked if we knew *Dona Nobis Pacem*. She and her brother sang one part together, beautifully, and we sang the rest. I was so glad we were able to sing together. It was physically and emotionally satisfying to give them something that penetrated to the core of their grief. It also validated, in the deepest way, our choir’s mission: providing a container for accessing the sacred. Three singers, a tiny baby’s body, and three grieving family members—intimate, deep, and right in the middle of daily life.

The human voice, as our original musical instrument, is a true and gracious vehicle for compassion and comfort. When invited, we visit the bedsides a few times a week in small groups and we invite families and caregivers to join us in song or to participate by listening. Our repertoire is chosen to respond to individual musical taste, spiritual direction, and physical capacity. Some of

our most treasured songs for bedside singing have been written by choir members. Our singing might include rounds, chants, lullabies, hymns, spirituals, and classical choral music. The service is our gift.

The Threshold Choirs provide opportunities for singers to share their voices, their compassion, and their truth with others facing life’s thresholds. It is a sacred way to build community and be part of a unique, cocreated adventure. Most of all, it is a great comfort to those who face thresholds of illness, suffering, and dying. **sfm**

Kate Munger’s earliest memories are of her mother singing lullabies every night to her and her siblings. These memories—her mother’s voice and her joy in singing—were very profound influences on her. Kate has sung in several choirs over the years and feels that singing has been one of the most important threads that runs through her life. In 1975 she started leading monthly rounds singing circles, which gradually expanded and gave her the confidence and contacts to move onto her current project. As the founder of the Threshold Choir, she enjoys sharing the gift of music and song with those facing life’s transitions.

The Healing Harp

The Oldest Healing Musical Instrument

Claire Dunne

The harp, as an instrument, has been sounding human life and healing since earliest records began. Its unfolding story is evolving still, cutting-edge in our own time.

Five thousand years of this history we know. The oldest urban civilizations had harps. Excavation of the royal tomb of Ur in Mesopotamia (dating from 2,700 B.C.) yielded fragments of three harps and nine lyres. Tombs of Egyptian rulers of the same period depict harps, some seventy inches tall, with up to thirteen strings, played by white-robed priestly figures, male and female, in standing, kneeling, or sitting postures. Ancient Persia, Assyria, Babylonia, and Greece had harps known by a variety of names—all representatives of the plucked-string music family, the world's oldest melodic instruments.

Myth, often representing collective levels of the unconscious, tells us universal stories of beginnings. At one end of the spectrum, the harp appears as a ready-made gift of the gods for worship, celebration, healing, and soothing the soul. At the other end, as inspiration for the harp's physical creation, music of the wind breathes through the bleached skeleton of a whale, healing love relations along the way. A classic Irish myth tells of the interplay of gods, nature, and archetypal human moment originating the power of music as support. As nature god Boinn struggled in her birthing time, her husband, the chief god Dagda, was attuned with her travails on his harp. The emotional range was experienced by her giving name to their three sons and the corresponding triple strains of Irish music still current.

*One is Joy Song, one Sorrow's,
One, "song that gives Sleep,"
And the harp's strains, their father's,*

*Remembered
they keep.*

Birth and death, enchantment, prophecy, love, magic, and healing are age-old characteristics of the harp. The healing lineage continues into the Biblical time of David (1,000 B.C.), asked to play the harp to calm the raging, depressive swings of King Saul.

"With the harp I will solve my problem" (Psalm 48) is one of forty-three Old Testament references to the harp. It was Pythagoras, in the sixth century B.C., who made music a science as well as an art in the West, introducing into Greek civilization ancient knowledge of Memphis and Babylon.

Setting up experiments to discover how music worked, he expressed its primary consonances in mathematical formulae, developed the Western scale by calculating intervals on the harmonic series, found exactly which mode affected what emotions, played specially created music to heal physical and spiritual illness (inclining particularly to stringed instruments such as the lyre), and then passed on the knowledge to his students to apply in their lives.

Two thousand years later, the great psychiatrist C.G. Jung gave a psychological perspective of music: "It expresses in sounds what fantasies and visions express in visual images.... Music represents the movement, development, and transformation of motifs of the collective unconscious." An invitation to hear pianist/music therapist Margaret Tilley at work in 1956 moved Jung to conclude that, "used therapeutically from this level, music should be an essential part of every analysis." Therapeutic harp language of today simply says "... harp strings



resound in sympathy and harmony with the nerves and muscles of the body ... by plucking strings tension is released through sympathetic resonance" (Sarajane Williams, *The Mythic Harp*).

America is now leading the world in harp music as healing. Although harp concerts listed in the U.S. date from 1790s, it was the import of European harp innovators such as Carlos Salzedo (1909) that helped make the U.S. a modern center for the harp. The instrument was by then expanded to a fully chromatic twelve-note scale, giving it the ability to play complex classical music. The harp's extension back into healing began in 1923, when harpist Willem van de Wall initiated the first music therapy program at a Pennsylvania State Hospital. About seventy U.S. universities and colleges now offer graduate and undergraduate courses in music therapy. While certified music therapy covers a wide range of human rehabilitation, it is in the expanding field of palliative care that the harp plays a prominent, though not exclusive, role.

Music thanatology (the study of death and dying), with its focus on sonic deathbed vigils, was pioneered from 1973 by singer/harpist/composer Therese Schroeder-Sheker. As an undergraduate music student, Therese supplemented with a job as an orderly in a geriatric hospital. Appalled by the paucity of human care, she soon reached a fork in the road: she could quit, or follow the advice from a friend in the ministry to "protect them." Later, in what she describes as a turning point, she responded compas-

Continued on the Following Page...

Continued from the Previous Page...

sionately to a testy, thrashing man dying of emphysema, intuitively holding him from behind in the bed and singing, falling into synchronisation of breath and bone conduction of sound, as he trusted, relaxed against her, and eased into the mystery of death. It was, Schroeder-Sheker says, “a completely life-changing experience for me.” It was also an example of “deathbed healing” as opposed to “cure,” and a dawning of some prime modalities of palliative care.

Schroeder-Sheker continued with her “destiny”—doing, learning, defining, and refining by experience, a slow process guided by intuition. Reaching back for historical inspiration, she turned to the eleventh-century Benedictine monastic tradition of accompanying the dying with music, noting its twofold “care of the body, cure of the soul” as a building-block philosophy. She also read and studied widely, meeting with interested professionals in many fields.

The polyphonic harp, with its noninvasive tonal substance, warm low strings, and capacity to play multiple notes simultaneously, proved “perfect” in deathbed vigils that delivered customized music suited to patients’ physiological and emotional conditions in the early to imminent stages of dying. Sometimes two harpists would play, one on each side of the bed, in homes, hospitals, and hospices, creating a surround of music that accumulated overtones, helping sound penetrate into and soothe the body and soul of the client. The music often elicited distinct inner shifts within recipients, reconciling, forgiving, loving, accepting, radiating Presence before death. There were empirical discoveries as well: the effectiveness of distinct modal music, which also linked with early sacred literature, lullabies, and some emerging twentieth-century music. Most important was the realization that the playing of nonmetrical music at the end could help patients unbind from time and life.

Schroeder-Sheker’s pioneering trek became a music thanatology course, taken to bachelor’s and master’s levels in Denver’s academic institutions; rehoused as a medical modality attached to a hospital in Missoula, Montana, for a decade; and now independently based in Mt. Angel, Oregon, as a multifocussed Chalice of Repose program

offering a two-year course covering seventeen different subjects over five semesters in five tracks—an interface of musical, academic, clinical, medical, and inner development teachings. Schroeder-Sheker serves as academic dean and is the author of *Transitus: A Blessed Death in the Modern World*. The course has become a service pointing to a hunger of need: Schroeder-Sheker has been known to receive 3,000 e-mails in one day in response to a single television interview.

Essentially, the accredited music thanatologist begins a vigil by centering herself, then focussing entirely on the client, observing the vital signs. Working from “interior tuning,” these providers echo, synchronise, accompany, and entrain. Trained to use music clinically as sonic medicine, they choose scales, texture, consonance, and dissonance to suit. They can relate melodic content with the nervous system, harmonic with respiratory/circulatory, rhythmic with metabolic, to stimulate or suppress pulse, heartbeat, body temperature, and skin secretions. They relieve physiological and interior pain, helping people die well.

Just as physics demonstrates that sound organizes and reorganizes matter (Ernst Chladni and Hans Jenny), so does music thanatology reorganize the human being. It is art, science, vocation; music, medicine, spirit; human, harp, service.

Midway between music therapists and music thanatologists are practitioners of healing music, with two U.S. national programs offering certificated courses. As well as providing palliative care, practitioners of healing music may work in pediatric, preoperational anxiety, and pain management, facilitating emotional catharsis and release in other arenas. In different schools, philosophic and training emphases may vary; some have created their own old/new methodologies, while basics such as entrainment and the modes in palliative care have commonality—as does the importance of self-awareness development in practitioners. “Applying healing music as healing art” can affect body, soul, and spirit.

The Music for Healing and Transition Program (MHTP) delivers training to all instrumentalists and vocalists. The International Harp Therapy Program (IHTP) is for harpists. Board accreditation for graduates of

these groups is under way.

Reaching out internationally, a determined collective effort in 1995 inaugurated the first International Healing Harps Symposium, held in Pennsylvania and hosted by nurse/psychologist/vibroacoustic harp therapist Sarajane Williams. Soon afterward, she launched the *Harp Therapy Journal* in order to gather information worldwide. In 2005, the ninth triennial World Harp Congress, held in Dublin, included for the first time a panel session on harp therapeutic music. Harpist/teacher/Director of IHTP Christina Tourin now presents modules of the work as far afield as Ireland and the U.K., Japan, and Mexico. October 2007 saw the first Symposium on Medicine and Music in Sydney, emphasizing harps in palliative care. U.S. special guest Stella Benson, certified music and harp practitioner and author of several teaching manuals, is now offering international training modalities for “artist healers” via the Internet, in individual aural instruction by long-distance phone.

It may seem a long way from prehistoric harps in Egyptian tombs and Irish myths. Yet in healing and palliative care, most of the harps used are the Celtic variety, “the purest sounding of all string instruments” (Kay Gardner, *Sounding Inner Landscape*). It is their easy portability, diatonic (white notes on the piano) modal structure, pure sound, and whole-note pentatonic (five-tone) scales, hearkening back to the historic Irish harpers, that makes them so suitable for the simpler music needed for healing.

What this age-old story of harp, healing, and humans repeatedly sounds for us is recurring patterns of continuity and meaning, the instrument’s renewals an uplifting spiral of notes in each era of its long, bestowing life. **sfm**

Claire Dunne, Irish born author/lecturer/broadcaster, has produced radio documentaries and articles on Irish and concert harp history and presented on healing music at the World Harp Congress 2005. Her books include Carl Jung: Wounded Healer of the Soul and People Under the Skin: an Irish immigrant’s experience of Aboriginal Australia.

Calming the Surgeon and the Patient

The Positive Effects of Music in the Operating Room

John Maa, MD, FACS

Einstein should have studied relativity in an operating room. When an operation is proceeding well, hours can race along and feel like mere minutes. I remember starting a vascular procedure at 7:30 a.m. during residency: harvesting the saphenous vein, exposing the femoral vessels, and performing a distal bypass to the tibial vessels. As I removed my gown at the end of the case, contemplating the many inpatient tasks awaiting me, I thought I might try to have lunch beforehand. I was surprised to discover that it was almost 4:00 p.m. At other times though, the sun rises and sets before a complex operation is completed, and surgeons mark the passage of time by counting the number of changes in personnel around them.

Throughout his football career, Joe Montana demonstrated an extraordinary ability to perform well in high-pressure circumstances by remaining calm in difficult situations. Like a football game, every operation has its unique pitfalls that can generate tense moments and anxiety. How-

ever, surgeons may have an advantage that quarterbacks do not—studies have shown that music in the OR can improve a surgeon's performance. I believe that music helps many surgeons remain calm and focused, especially when they are tired and operating in the middle of the night. For me, the effect of Mozart not only stimulates creative thinking in challenging cases, it also forestalls the approach of anxiety. Music softly playing in the OR lends a sense of elegance and harmony, and it signals to the entire operating room team that things are proceeding well. Conversely, anyone walking into a silent OR soon recognizes that the operation is likely at a particularly difficult juncture.

Music can also provide the proper rhythm for what one of my attendings called the choreographed ballet of surgeon and assistant, who must move in synchrony to properly expose, transect, and anastomose tissues. Moreover, music provides an important sense of movement when an operation is temporarily stalled by ambiguous or unexpected findings, until clarity emerges. However, I agree

with concerns about the potential negative effects of interfering noise on patient safety and comfort. For that reason, if the operation becomes unexpectedly difficult, then the music is turned off immediately and extraneous conversations and pager interruptions are kept to a minimum. And if the patient will be awake during the procedure, he or she has the first choice of what we listen to during the operation.

Consider this: The average operating time for a liver transplant is nine hours, and the flying time from San Francisco to London is ten hours. Could you imagine flying to Europe, or driving from San Francisco to Los Angeles, in silence? What made the vascular case during my residency seem to go by so quickly was the music of Louis Armstrong, Beethoven, the Rolling Stones, and Faith Hill. I wonder what Einstein would make of that? **sfm**

John Maa, MD, FACS is an Assistant Professor in the Department of Surgery and the Associate Clerkship Director of Surgical Education for UCSF.

In the Works for 2008

Upcoming San Francisco Medical Society Events

SFMS deYoung Museum Night

Don't miss the SFMS night at the deYoung Museum! Join SFMS members on Friday, May 9 for a reception—catered by Bon Appetit—from 5:30 to 7:30 with access the entirety of this stunning museum until it closes at 8:30. The cost for this exciting new event is just \$20.00 (includes museum admission) for SFMS members and their guests. Contact Therese Porter in the Membership Department at (415) 561-0850, extension 268 or tporter@sfms.org for more information or to RSVP.

The Togonon Gallery and Jazz Mixer

Returning in late August! Watch for details.

SFMS Night at the Symphony

In October or November (date tba) join your physician peers for an evening of warm fellowship and great music at the SFMS Night at the San Francisco Symphony, combining a terrific Symphony performance and an exciting pre-performance reception.

Annual SFMS Nutcracker Night

This December look for the exciting and family-friendly fun of the second Annual SFMS Nutcracker Night!

Visit our website often for event and membership updates, or contact Therese Porter at (415) 561-0850, extension 268 or tporter@sfms.org.

www.SFMS.org/events

Jake Leg

A Public Health Mystery Is Solved through the Blues

Eisha Zaid

“Jake leg, jake leg, what in the world you trying to do? Seems like everybody in the city’s messed up on account of drinking you.” When Ismon Bracey, a blues singer, mentioned jake leg in his 1930s song, he was referring to an epidemic that swept through the United States during the Depression, which left thousands of men limping from paralysis and suffering from impotence.

Dr. John Morgan, a pharmacogeneticist and professor at the City University of New York Medical School, has been researching jake leg by tracking its appearance in music for the last thirty-two years and has compiled a collection of seventeen songs that make reference to the disorder. He shares his findings in an article that appeared in 2003 in *The New Yorker* entitled “Jake Leg: How the Blues Diagnosed a Medical Mystery.”

Morgan believes that the jake leg tragedy would have been forgotten had it not been for the development of an entire new genre of folk music. Blues singers, including the Allen Brothers, Ishmon Bracey, Tommy Johnson, the Mississippi Sheiks, Willie Lofton, and Daddy Stovepipe and Mississippi Sarah reported the association of paralysis with jake consumption well before any epidemiologists, government agency, or doctor could put the pieces together.

The new genre of music appeared during Prohibition, an era of desperation that left the poor consuming whatever alcohol they could get their hands on, including rubbing alcohol, hair oil, doctored antifreeze, and patent medicines. Despite passage of the Volstead Act in 1919, which initiated a dry spell through most states, alcoholic patent medicines were not outlawed. Among the patent medicines was jake, a pale orange

liquid made from Jamaica ginger extract. Composed of 85 percent alcohol, it packed the equivalent of four jiggers of scotch. Jake was marketed to treat catarrh, flatulence,

“When Ismon Bracey, a blues singer, mentioned jake leg in his 1930s song, he was referring to an epidemic that swept through the United States during the Depression, which left thousands of men limping from paralysis and suffering from impotence.”

and late menstruation but transformed into a new source of alcohol.

The jake leg tragedy influenced a generation of blues artists, whose music chronicles the progression, symptoms, and physical manifestation of a disease that mysteriously appeared and impacted the entire nation. The first connection to jake consumption and paralysis was noted in Ishmon Bracey’s song “Jake Liquor Blues” in 1930. In addition, Tommy Johnson made a similar association in “Alcohol and Jake Blues.”

Men suffered from impotence in addition to paralysis, and the songs of the time echoed the frustration and embarrassment that came with this jake-consumption symptom. Bracey sings, “It’s the doggonest disease ever heard of since I been born. You get numb in front of your body, you can’t

carry any lovin’ on.”

The first documented case of jake leg was reported by Dr. Ephraim Goldfain, the director of a 135-bed hospital in Oklahoma City. Goldfain reports that “the patient’s feet dangled like a marionette’s, so that walking involved swinging them forward and slapping them onto the floor,” a description that mirrors the lyrics of many jake leg songs. But Goldfain did not know what was causing this mysterious condition. Interestingly, the Allen Brothers made reference to the mysterious condition and its associated symptoms in their song “Jake Walk Blues” in 1930: “I can’t eat, I can’t talk, drinking mean jake, Lord, I can’t walk.”

The jake leg outbreak was not just limited to Oklahoma. The epidemic swept across the nation from Rhode Island to Massachusetts to Kansas to Mississippi to Tennessee, generally affecting the alcoholic, unemployed, poor man who lived alone or in the seediest parts of the city.

During the time of the jake leg epidemic, the paralysis was attributed to polio. But as more and more cases emerged, it became apparent that the “bizarre palsy” that was referenced in the music of the time was due to a different cause. Autopsies of jake leg victims revealed central nervous damage to the anterior horn cells, similar to the pathology observed in polio and amyotrophic lateral sclerosis (Lou Gehrig’s Disease). In addition, the spinal column pyramid cells were also injured, which may have caused the spasm and rigidity observed in patients. Some regained mobility; others remained immobile though higher brain function was preserved.

Fingers started pointing to jake as the culprit of the mysterious condition, and

Continued on Page 32...

From Mind to Heart

A Healing Musical Journey

Gary Malkin

“Love and intimacy are the root of what makes us sick and what makes well, what causes sadness and what brings happiness, what makes us suffer and what leads to healing.”—Dean Ornish

There’s an old adage that says the most significant journey we’ll ever make in this life is when we travel the distance from our minds to the region of our hearts. Throughout the world’s spiritual disciplines, the act of deepening our relationship to the Heart and to the many expressions of Love is considered the epicenter of all true healing. It is my belief that music, especially when played or created with an intent to soothe, inspire, and heal, has the power to awaken us to this inherent birthright we all share, this innate capacity to love and be loved.

After nearly fifty years of creating music, I’d like to share a bit of what I’ve learned about its healing power, especially when the music is intended to serve as a catalyst for the feelings associated with love, forgiveness, compassion, and gratefulness, to name a few—resulting in a palpable connection with ourselves and others in ways that can measurably accelerate healing on many levels.

The Primacy of Listening

Of all the art forms, music is an astonishing emotional language that communicates to us in the most visceral and immediate of ways. Through powerful vibrational frequencies, timbres, harmonies, rhythms, and melodies, we innately respond to music in ways that we’re only just beginning to understand. From the Big Bang to the vibrational frequency of the earth to every sound and word we’ve ever heard or spoken, everything we are and everything we know

is a kind of music, based on vibrations. In fact, vibration is the common denominator of the universe.

Therefore, I find it no mere coincidence

“Through powerful vibrational frequencies, timbres, harmonies, rhythms, and melodies, we innately respond to music in ways that we’re only just beginning to understand.”

that the very first sense humans develop in utero is hearing, and the very last sense to go before we take our last breath is hearing as well. This biological fact has always suggested to me that, for human beings at least, there is a kind of *primacy* to our listening sense. Music allows us to experience life’s complexities in a language all its own, especially effective when attempting to explore our relationship to the unseen worlds, with Great Mystery, and with Love itself.

Our Obsession with Visual Stimulation

When you look at the contemporary modalities for healing (conventional and integrative), specifically regarding proactive strategies that have been shown to inspire emotional states of contentment, connection, and deep relaxation (which can be useful in the midst of healing crises), these psychosocial strategies are often completely ignored, or, at best, regarded as superfluous. A cursory look at the very design of most hospital rooms, with the ubiquitous

television sets protruding out of every wall, demonstrates what health care’s priorities are, with respect to creating environments that are suitable for healing.

And why are televisions literally everywhere in health care environments, while institutional music-playing devices are often in rare supply? Our eyes (in cahoots with the parts of our brain that process information) use 90 percent of our linear discriminative faculties, constantly seeking data that can funnel through our optic nerves, endlessly ravenous for stimulation. This cultural obsession with our visual portals often successfully distracts us from what we’re feeling, preventing us from ever uncovering the partial truth that we are, in essence, existentially alone, and that we are, in fact, going to die one day.

Ironically, what this cultural bias toward constant visual information also does is deprive us of the simple beauty of presence and silence, of reverie and of a wordless connection with others, and with the remarkable atmospheric and emotional benefits of music. Therefore within health care, despite best intentions, very rarely are the emotional and spiritual dimensions and their correlation to healing addressed in effective and meaningful ways. Somehow, the absence of sound that awakens our hearts and spirits is often overlooked and, even disregarded.

Love as an Immune System Tonic

While there’s reams of evidence supporting the revelations in the field of mind/body medicine, and of the value of feeling connected to something larger than ourselves, our culture’s institutions have relegated these heretofore unquantifiable

Continued on the Following Page...

Continued from the Previous Page...

matters of the heart to the more analytical mental health fields, or to our faith-based institutions. Historically, rarely have the twain (the realms of health care and experiential modalities designed to inspire feelings of Love and well-being) formally overlapped. In fact, the thought that any obstructions to feeling love could in any way undermine our ability to respond to healing protocols is something that has been viewed with cynicism and derision.

However, the times are changing.

One Family's Story

A few years ago, I received a call from a man who had just lost his wife through a protracted illness and end-of-life process. It was a day after the memorial service, and from the sound of the elation in his voice, one would not have thought that this man had just lost his life partner of fifty years. But he proceeded to share with me a deeply moving story.

This man, whom I will call Bernie, had four sons, all embroiled in a nasty feud. This feud was of such proportion that not one of his sons would tolerate being in one another's presence, including in their mother's hospital room, even though their mother, Sarah, was seriously ill. This feud had been going on for years, and I can only imagine the despair, frustration, and exhaustion Bernie was going through. There was his beloved wife, sick with a life-challenging illness, probably on the threshold of an end-of-life process, while all of his sons remained staunchly committed to their anger, to their self-righteousness, and to their determination not to "cave in."

During this time, a dear friend came to the hospital room to visit while one of the sons was present. This friend came in, turned off the television, and, as luck would have it, brought with him a small CD player, on which he started playing the instrumental music from *Graceful Passages*, one of the projects for which I created music specifically to assist people in soothing fears while traversing life's transitions and challenges.

After a few minutes of allowing the music to gently permeate the room's ambience, something barely perceptible started to shift

the room's emotional tonality, subtly calling forth feelings from deep within the son who was present. He quietly started to cry, feeling the weight of his mother's illness, perhaps for the first time. And then, something surprising occurred. He woke up to the horror of what he and his brothers were perpetuating by remaining out of contact with one another during this challenging time. Within a few hours, he summoned the courage to contact the one brother with whom he had a tiny opening, asking him if he would be willing to just listen to some music together. In that room, they sat together for the first time in years, listening quietly to this music. And as they did, they mutually acknowledged the shifting tectonic plates within their hearts, gradually moving toward one another in spite of themselves.

Bernie told me that one by one, a different brother was invited to listen to this music. It took all of forty-eight hours for each of the four sons to come to their senses and get out of their petty positions in order to show up for an event in their family's life that would be remembered forever. For the next month, they laughed together, cried together, forgave one another together, listened to music together, and, most important, loved their mother together as she found her way home.

While telling me this story on the phone, Bernie was by now in tears. Tears of gratitude to me for creating this music that had become an indelible part of their journey, tears of joy for being a part of helping his family heal its wounds, and tears of fulfillment for helping them all learn to be a family together again. And I was in tears, not only because of the enormous honor he had bestowed upon me by sharing his story, but also because of the extraordinary gift I've been given to use music as a language for loving, for healing, and for supporting people to remember what matters most in this life.

Healing Environments with Music

We live in a time when revelations in neuroscience, quantum physics, and molecular biology have simply not yet been integrated into the way we live and the way we approach healing. We now know that there are subtle yet significant factors that

can affect how we think, feel, learn, grow, and relate to one another. However, we've lived in a Cartesian paradigm for so long ("I think, therefore I am") that cavalier skepticism still automatically greets any suggestion that our emotional and spiritual states can significantly influence our immune system's capacities to recover from dis-ease, and actually assist in our healing process.

Music is one of the most underestimated healing modalities, especially when used subtly as an environmental support tool, the way that it was used in Sarah's hospital room. When the right music is integrated sensitively it can help us unravel our fears, soften our ability to feel again and become open to looking at the glass as half full for a change. And as you've seen with Bernie's family, it can induce emotional states of being that could dramatically and beneficially influence the outcome of seemingly intractable situations and circumstances.

When you can use music, subliminally or overtly, to instill direct experiences of what cultural anthropologist Angeles Arian calls "the Arms of Love"—compassion, service, kindness, appreciation, forgiveness, and presence, for example—chances are you've significantly increased the propensity for healing, if not of the body, then most assuredly of the heart and soul.

Next time you find yourself in an environment where dis-ease is present, allow yourself to experiment with this phenomenon by integrating, however subtly, deeply soothing music that you truly love into the environment. You'll see that music can provide a powerful support tool for the healing journey, keeping us open, porous, humane, and grateful for being alive. 

Gary Malkin is an Emmy award-winning composer and producer whose career in film, television, and commercial music spans nearly thirty years. As founder and creative director of Wisdom of the World and as cofounder of the nonprofit Companion Arts, he brings his passion for social change and spiritual awareness to the world by using the power of music and spoken word to create innovative tools for contemplative practice, as well as for cultivating spiritual and emotional wellness. Malkin's work has gained national attention through the book and CD set Graceful Passages (coproduced by Michael Stillwater).

Life in the Vortex

Introductory Notes of Physician-Musician

Bruce S. Victor, MD

It's not clear when the transition to physician-musician really occurred. Perhaps it started about four years ago, when I was looking at a website of well-known guitar makers. Amid the wonderful guitars was a reference to the general manager's ten-year-old daughter, who had recently been hospitalized with juvenile-onset bipolar disorder. Without the awareness of something audibly "clicking," I was quite clear that I needed to organize a benefit concert for this girl and her family. After all, I had been the Chairman of the Professional Education Committee for the Northern California Psychiatric Society, I'd given more than a hundred talks on mood disorders, and—hell, I had been a guitar player for more than forty years. There was no subjective feeling of actual decision, because there was no conscious experience of deliberation that preceded initiating this course of action.

In retrospect, then, the transition to Physician-Musician involves trusting a part of one's self that is not always encouraged by the mores and areas of cerebral emphasis that have achieved value and emphasis in psychiatric culture. It involves doing things that will not always seem purposive or rational at the time. It is analogous to being Kevin Kostner's character in the movie *Field of Dreams*: "If you build it, they will come." Inchoate as are the dictates of this aspect of one's psychospiritual development, there is the sense that one ignores them at one's peril.

The concert was a great success. I collaborated with music legends John Sebastian and David Grisman and felt the synergy of their energy behind the overall effort and the enthusiastic response of the audience. It was a "healing community" indeed, for those

hours. However, this concert then tripped off a string of seemingly coincidental events that led to my hosting (and continuing to host) a series of house concerts. This concert series is called "The Acoustic Vortex House Concert Series," named (by Stevie Coyle, a master finger-style guitarist) for this whirling, unseen force that seems to link people and events despite themselves.

The establishment of the concert series, in turn, triggered a series of events and meetings with other musicians and music aficionados that led the Acoustic Vortex to comprise an ever-expanding collective of people who are present for, and *do things* for, others through music. Most of the musicians in the Vortex have played concerts for Bread and Roses, an organization started by Mimi Farina that brings live music and other forms of entertainment to people in institutions (visit www.breadandroses.org). In December 2007, members of the Acoustic Vortex put on a benefit concert for Bread and Roses in conjunction with the breathtakingly talented Tuck and Patti. New Year's Eve was spent playing at a drug rehabilitation center. A May 23 concert at the 142 Throckmorton Theatre (www.142throckmortontheatre.com) in Mill Valley will also benefit Bread and Roses. And the Acoustic Vortex will continue to stage benefit concerts for social organizations that reach out to improve the lives of others.

The great theologian Abraham Joshua Heschel wrote, "When I was a young man, I admired clever men; now that I am older, I admire kind men." Perhaps the transition from physician to physician-musician parallels that sense of psychospiritual growth to which Rabbi Heschel referred. I simultaneously honor but acknowledge the limitations of psychiatric training and physicianhood,

as well as reconceptualize what it's about. And this has grown in parallel with, and has been profoundly influenced by, my recent development as a musician.

When I was young, I admired clever men... The allure of psychoanalytic theory was its belief in the power of "insight" as both transformative and liberating. Yet nearly absent from Freud's writings, as well as those of his acolytes, is any reference to altruism, empathy, even compassion—thus quietly, covertly, but no less inexorably reifying the "clever" or "insightful" man as the ontologic touchstone. Even further, the relentless reductionism of Freud and his followers, while providing an interesting starting point in my search for the meanings of behavior, became analogous to (in the words of Woody Allen) "taking all of the music and dancing out of *My Fair Lady* and turning it back into *Pygmalion*." And while the efficacy of recent psychopharmacologic advances helped elucidate the importance of the right carburetor mix at the synapses, it too lacked a theoretic fulcrum by which we could understand both transcendent experience and more profound interconnection with one another.

However, my increasing fascination with and subsequent study of the interrelationship between music, healing, and the nature of enhanced human interconnection began on the deck of my friend Stevie Coyle. On one beautiful morning in May, we are playing a guitar duet on a tune entitled (I'm not making this up) "One Morning in May." We were playing in complementary tunings and the harmony simply emerged, without a musical blueprint or battle plan. Sure, I was listening to Stevie and had *some* forethought regarding what I was going to do next; it wasn't really one of

Continued on the Following Page...

Continued from the Previous Page...

those mystical fusion experiences, despite the aforementioned deck's location in deepest Marin County.

But I began to wonder, how is all this harmony possible? How did we tune into one another? And is the way we did so musically a metaphor for how individuals can "tune into one another" without instruments in their hands, conversing rather than singing?

It occurred to me that certain factors that are the process and the product of successful psychotherapy also apply in this kind of musical exchange. For openers, the process is predicated on a reduction of anxiety about the process itself. If I was anxious about judgment or retribution for either wrong notes, excessive ornamentation, slipping out of rhythm, or any of the other musical inevitabilities, then my fingers and hand would lose the dexterity needed for delicate finger-picking. Plus, any preoccupation with the contents of my own mind would have meant I wouldn't be able to really *hear* Stevie. Further, while I probably have my own idiosyncratic sound and intonation when I play, I can neither be wedded to it nor be unable to modify it—indeed, I need to play with it as I play.

Further, there was—as in any good psychotherapy—an underlying structure here: agreed-upon rules about trying to stay in the same rhythm, about playing pretty much the same chords (even in different tunings) or complementary ones, and about following when the spirit moved one of us further out on a harmonic trail (with a reciprocal obligation on the part of the trail leader to make sure he didn't lose the follower). And there was also an implicit understanding that adherence to the structure made it possible to barrel out of one's own confines in a way that produced more euphony and harmony than propulsive, cacophonous escape.

Sitting on Stevie's deck, it therefore struck me as unfortunate that psychiatrists and nonmedical psychotherapists have paid so little attention to the transformative power of music—especially as it acts upon the player, not just the listener.

It is similarly unfortunate that most people believe that a certain amount of "talent" is the prerequisite for permitting

oneself to continue in music. How many times have I heard in my own practice, "I love playing music, but I quit because I just wasn't good enough..."

Of course, self-denigration and hopelessness, no matter how focused, circumscribed, or even seemingly rational, has always constituted a clinical focus for us psychiatrists. Patients feel isolated, alone, and especially anxious that their sense of isolation and loneliness will continue. Part of the core of the dynamic basis for these painful states is the feeling that one isn't "good enough" and will therefore be sentenced (even as self-fulfilling prophesy) to, in the words of H.D. Thoreau, "lives of quiet desperation."

In my own practice, I have seen this disqualification from participating in music taken not only metaphorically but literally. And there was much healing to be had in addressing both simultaneously. Albert, for instance, was a fifty-year-old man whose obsessive self-recriminatory ruminations and depression had kept him from enjoying life. While there were solid dynamic, familial reasons for his self-contempt and hopelessness, the actual symptoms of his depressive disorder required prodigious doses of Prozac and Buspar. But still life was joyless, almost colorless. Last year he mentioned that the only thing in life to give him any real pleasure was English madrigal singing—a statement he made without realizing that I was about to devote myself to a six-week musical sabbatical.

Over the next few months, however, Albert purchased and began to use an iPod that provided him with a ready source of mellifluous auditory stimuli that gave an alternative to the nasty commentary of the malevolent Greek chorus inside his head. He became happier than I had ever seen him. He realized that "music takes me into the moment, into the present ... and I then realized that what was inside my head was neither in the moment nor in the present. ... It helps me be aligned with that which is beautiful."

As comedian Emo Phillips once noted, "I used to think that the mind was the best part of a human being ... until I remembered what was giving me that thought..." This statement is a fitting reminder that *psyche*

referred to "soul," not "mind," despite the modern conflation of these two entities. As I continue to evolve as a physician-musician, I increasingly see the overlap of spirit in the service of healing. In music I am reminded of my true province as a *psyche*-trist. **sfm**

Bruce S. Victor is Clinical Professor of Psychiatry, School of Medicine, University of California at San Francisco; he also maintains a private practice in San Francisco.

Jake Leg

Continued from Page 28...

investigators from the Hygienic Laboratory, the predecessor of National Institutes of Health, finally analyzed the chemical composition of jake later in 1930. Subsequent analysis uncovered triorthocresyl phosphate (TOCP), a plasticizer that was being added to increase solid composition in jake to meet the Treasury Department's order that solids in patent-medicines be doubled. TOCP was a cheap and easy solution that increased the solid mass without altering the taste of the jake, which is what made it so attractive to customers despite the toxic effects.

The music of the time also conveys a powerful social message about jake and the government: "You thought the lively man would die when you made the country dry, when you made it so that he could not get another drop of rye. Well, I know you will feel bad when you see what he has had. ... He's got those jake limber-leg blues." The Mississippi Sheikhs capture the prevailing antiprohibition view of most victims, who attributed their condition to a restrictive government policy that led individuals to desperate measures that had irreversible consequences.

The collective voices of the time chronicle more than the history of jake, paralysis, and government disapproval. Their songs tell a story of victims affected by a disease, and their voices reveal the power of music to convey a cautionary tale and valuable medical information that might have otherwise gone overlooked, never making it into the annals of medical epidemiology. **sfm**

Eisha Zaid is a first-year medical student at the University of California at San Francisco.

Works Cited: Baum, D. Jake leg: How the blues diagnosed a medical mystery. *The New Yorker*. 2003; 9.5:50-57.

Doctor of Harmony

Care of Musical People and Musical Hands

Robert E. Markison, MD

Initial Interest, 1960: Finger Flexors and the Physics of Woodwinds

Three years after our family acquired a hi-fi sound system, I developed a fanatical interest in classical and jazz clarinet, listening endlessly to the classical recordings of British clarinetist Reginald Kell and French clarinetist Gervase de Peyer alongside jazz recordings by Benny Goodman, Artie Shaw, and Buddy de Franco.

Fortunately, my clarinet teacher, Peter Ferrara, was equally nimble at playing classical music and jazz. Unfortunately, I made a mess of the mid range of the instrument because my right little finger was simply too clumsy to move from the lower register to the upper register. My pinky stumbled all over the cluster of four keys as it tried to work independently. I played in the third clarinet section in the school band and felt that there was no hope of reaching the front of the line.

I later learned that 37 percent of people are born with hands with congenital linkage of the ring and little finger flexor tendon systems, certainly a blight for a fledgling clarinetist and of no particular concern to young trumpeter.

Nonetheless, 1960 was a rather magical year because it included the publication of A.H. Benade's "Physics of Woodwinds" in *Scientific American*. The landmark article described the acoustics and mechanics of woodwind instruments, and it became obvious that a reasonably adventurous and motivated person could bend some rules without compromising tone. My teacher encouraged me in my studies of instrument modification, including metal casting and metal and wood machining and smithing. I managed to scale down the clarinet's right



Bob Markison, MD, with his new custom-designed twelve-string lap steel guitar.

little finger-activated four-key cluster to 75 percent of normal size, thereby reducing the need for independent travel of my right little finger. The sudden improvement in my playing fortified my belief in the workability of the human-musical instrument interface.

Forty-eight years later, I remain enthusiastic about design of new musical instruments and hand tools, modification of existing instruments, and musical technique across various instrumental categories, as well as hand surgery and medicine, the study of brain-hand linkages and biomechanics, and long-term follow-up on a fascinating international population of fine musicians.

Mistakes Musicians Make, and How to Correct Them

Cold hands: Much of medicine is focused on the integrity of cerebrovascular and coronary flow, but I humbly advise attention to vascular homeostasis of the upper limbs, because blood flow matters greatly in the support of large and small muscle repetitive usage and static loading. Cool hands often fail, and warm hands generally prevail. Cool-handed musicians benefit from wearing custom-made fingerless gloves whenever the hands register as cool on the cheeks. Keyboard and string players do not breathe as well as wind players, so they must

Continued on the Following Page...

Continued from the Previous Page...

be taught diaphragmatic breathing and “breathing there musical phrases.” Many players foolishly avoid food or drink before performing, running the risk of dehydration and shrunken peripheral vascular volume. All players are advised to prehydrate with noncaffeinated beverages before any practice, rehearsal, or performance.

Inappropriate warm-up: Many musicians jump into Hanon exercises, Paganini Caprices, or similarly daunting and hand-injurious warm-up exercises before checking their hand temperatures, sitting or standing in an ideal and relaxed posture, or generating long tones with minimal key or string pressure; and few are focused on diaphragmatic breathing. I advise musicians to record their warm-up routines and bring the audio or video to their colleagues for kind comment.

Too much finger force: Biofeedback has much to offer musicians of any age. The goal of any biofeedback is to simultaneously monitor temperature and proximal/distal muscular EMG activity. Patients quickly learn that proper posture and relaxed use of statically loaded and repeating muscle-tendon units result in much less effort in mastering the instrument. This “least force” concept applies equally to all musical instruments and musicians.

Overpractice and failure to self-record: Serious young musicians assume that the only way to scale the psychophysical mountains of repertoire is to spend four to eight hours per day at the instrument. I am lucky to care for a fair number of young prodigies, some of whom dare to spend eight to twelve hours per day at the piano or violin.

I advise musicians of all ages to record themselves, and they can compress the recordings down to .mp3 files and listen to them on their playback device while doing some nonmusical activity. Ideally, they should play for ten to fifteen minutes, listen back to the recording, and then repeat the cycle.

Neglecting ambidexterity: I am constantly surprised that the general population does not cultivate ambidexterity. Extreme single-handed dominance is risky for the dominant part and perhaps even riskier for

the opposite hand in the event that the dominant hand is injured. Musical patients are advised to cultivate ambidexterity in and out of music, writing and drawing well with either hand, executing piano keyboard passages with either hand or both hands simultaneously, right- and left-hand trumpet playing, intentional use of a left-handed guitar, ambidextrous use of silverware or chopsticks. Those who heed this advice are richly rewarded.

Inability to improvise and compose: Many classically trained musicians, particularly keyboard and string players, are afraid to improvise and rarely compose. They acknowledge that Bach, Beethoven, Mozart, Schubert, Ellington, Parker, Coltrane, and dozens of other composers have also been extraordinary improvisers, but they have not learned or even cared about improvising in their own musical works. I remind them that failure to compose a picture would leave a painter or photographer out of work.

Focus on a single style or idiom: I have never forsaken my classical musical training, and I remain comfortable playing classical music, but I certainly do not regret cultivating fluency within other types of music.

Single-instrument focus: It is always surprising to learn that many or perhaps most musicians do not play multiple instruments, often for fear of “diluting” their power or technique on a primary instrument. Dizzy Gillespie advised all wind players to study the piano. Curiously, pianists do not advise students to study wind instruments. Each instrument category informs the others. A basic understanding of guitar fretboard logic helps explain much of what is done on the piano keyboard. The natural sound frequency spectrum generated by each valve position on a trumpet can further tune and develop the ear of a violinist or any other single-note or polyphonic instrumentalist. I often vary my own instrumental “par course” within practice sessions, generally running the following instrumental sequence: drums, parallel and contrary single lines on the piano, piano chords, cello, acoustic or electric guitar, twelve-string lap steel guitar, ending with a wind instrument such as clarinet, saxophone, English horn, or trumpet. Each of these instruments informs the others.

Failure to pursue other arts: Miles

Davis built a career on well-chosen notes and carefully schooled silence between those notes. He also painted. Irving Berlin copyrighted 917 songs, and then decided to paint. Django Reinhardt was the only offshore jazz musician to substantially influence the course of American jazz, and he also painted. Musicians are “time smiths” who should be equally attuned to working in space.

Social reclusion: Beethoven spent his fifty-seven brilliant years in social isolation. Ellington walked easily and effortlessly on the world stage. A surprising number of musicians fail to value genuine social fluency, and I strongly advise them to develop great friendships and collaborations.

Too much computing: Thrashing away on computer keyboards can result in unnecessary wear and tear on the upper extremities. Patients with good command of English should master voice recognition software in order to reduce unnecessary hand use.

Side effects of medication, neglect of general health: Over the past thirty-odd years, I have seen a remarkable number of musicians who eat poorly, do not exercise, and suffer side effects from medications. Thirty-three percent of statin consumers suffer side effects, mostly aches and pains; this is particularly troublesome in the upper limbs of musicians. I routinely recommend that musicians find a primary care physician who has plenty of time to ask questions, and who orders appropriate blood tests.

Coda: Physicians and musicians have a great deal in common. They have studied hard to build repertoire, style, judgment, and even some ESP. And the good ones love to listen. **sfm**

*Dr. Markison is a solo practice hand surgeon in San Francisco. He is also an Associate Clinical Professor of Surgery at UCSF. He studied music composition at Julliard while majoring in biology at Columbia University. His book, entitled *Creativity and Health*, should be available soon.*

Living Both Music and Medicine

Where the Two Practices Intersect

As Told by Various San Francisco-Based Physician-Musicians



Philip R. Weinstein, MD

Performing neurosurgery as a profession and playing drums as a hobby happen in different worlds. I do them both and find each complementary and gratifying. Rarely do I think about one while doing the other, except when an operation is running late on an evening when I have committed to a jazz performance.

My percussion career began in Baltimore at age five, after my father answered a classified ad and bought me a four-octave xylophone from a Navy ensign shipping out during World War II. Dad had always liked the mellow and lively sounds of a wooden keyboard and hoped for virtuosity on my part. To Mom's chagrin, he failed to predict the evolution of the study of percussion he offered into a roomful of drums, endless hours of practice, and a lifetime of rhythmic exhibitionism. Ultimately, this commitment brought with it many conflicting youthful choices,

such as going out for football or marching in my high school band; taking a date to the prom or playing in the dance band; accepting a drum major scholarship or becoming a philosophy major and premed student.

The time demands of college, medical school, and residency increased pressure on my rehearsal time, and I shifted from performing with symphony orchestras and concert or show bands to jazz groups.

My musical memories echo with moments of performance anxiety and reward over the years. Taking a bow as the drummer for the Princeton Triangle Show annually on Broadway with the pit band to inaugurate our ten-city Christmas Holiday Tour, and hearing the applause echo after performing at Carnegie Hall with our jazz combo, the Minstrels of Modern Jazz, top the list. Another highlight was my annual summer trans-Atlantic gigs on Holland-America Line student ships, where seasickness never interfered with a single drum solo. Free passage afforded me the opportunity to spend the remainder of my vacation appearing in European jazz clubs with the band, an experience that has inspired an ongoing "have drum, will travel" attitude.

In medical school I found myself drawn to neurosurgery as a specialty because of a wonder and fascination with how the brain works, as well as the kinesthetic and intel-

lectual challenge of doing surgery. Neurosurgery has a pace, rhythm, and flow. Like drumming, doing surgery is a performance piece. It takes years of practice to do well—but, surprisingly, not nearly as many years as playing music requires. The allure for me was the melding of physical activity with intellectual problem solving and emotional satisfaction, much like playing jazz. Each operation has an opening, a critical portion, and a closure, similar to the introduction, development, and final chorus of a jazz piece.

Performing each is an intense, spontaneous, disciplined, and timeless experience. There is a repetitive format: an artistic improvisation of a melody, harmony, and rhythm in jazz and an anatomical improvisation of repair of brain, spine, and nerve function (when possible) in surgery. The results in both of these endeavors are overwhelmingly satisfying.

So in each of these realms, "I've got rhythm!" Cherished friendships and collective memories formed on stage and in surgery are treasured rewards. Recently I had the opportunity to combine the two when our Neurosurgical Jazz Quintet (NJQ) had the opportunity to not be paid for performance (P4P) in the Smithsonian Air and Space Museum Lobby, during the American Association of Neurological Surgeons (AANS) annual meeting in Washington, D.C. As we found, music binds together individuals in a community. Rhythm can integrate hearts and minds. Therapeutically, music can facilitate photographic memory and restore aphasic speech. In the brain, it has greater cortical representation than language and, according to some theories, song and dance preceded the evolution of linguistic communication. Functional MR imaging studies demonstrate

Continued on the Following Page...

Continued from the Previous Page...

unique connections between the temporal lobe auditory cortex and dorsal prefrontal regions—connections that are found only in humans, which may explain the absence of rhythm perception and performance in lower primates and other mammals.

For me, drumming feels good and sounds great. It celebrates the motion, life rhythm, and continuity that I hope to restore and sustain for my patients with surgical treatment of neurological disorders. Stay tuned for many encores to come.

Dr. Weinstein is Professor of Neurological Surgery at UCSF, Chief, Neurosurgical Service, Veterans Administration Hospital, and Principal Investigator, Brain and Spinal Injury Center.

Steve Walsh, MD

Three or four years ago I was playing piano for a benefit dinner and auction for a local high school football team. The crowd was looking over the donated goods and enjoying the conviviality of the evening. SFMS member Dr. Mel Blaustein's lovely wife Marilyn stepped up to my piano and said sweetly, "Keep playing, Steve. You make people feel that life is good." She made me feel some of that good life with her comment, reminding me again why I love playing piano.

I remembered that at age fourteen I discovered that playing piano at social events attracted girls. This gave me solid motivation to play more piano during a hormone-brimming Iowa adolescence. Previously I had resolutely defeated parental efforts to train their young prodigy in serious piano playing. I then took a few lessons in nearby Des Moines with Spec Redd, an African-American piano genius who had played on Mississippi River boats in his youth. I loved his rich, soulful, bluesy style and tried to emulate it. Other African-American piano men, like Erroll Garner, Oscar Peterson, and Horace Silver, have also been important influences for me.

Jazz improvisation and playing show tunes and music for singing and dancing at parties are the most joyous parts of making piano music for me. Done right, this can transform a gathering of friends and colleagues into a vivid and memorable experience. Psychiatric colleagues recently rewarded my twenty years of playing piano at our social events with the slightly tongue-

in-cheek "Scott Joplin/Cole Porter/Don't Shoot the Piano Player He's Doing the Best He Can" Award, shared with Dr. Herb Peterson, with whom I have often played duo gigs. Our SFMS Annual Dinners have been among my favorite venues, playing for our colleagues during the predinner cocktail party.

For me, playing piano has been a great way to connect with musical medical colleagues and friends old and new. Playing piano helps me experience the here-and-now more vividly. It evokes for me a sense of joy, of the poignance and preciousness of life, a wide spectrum of feelings and emotions, and the great pleasures of the imagination and of creative activity. Happily, it evokes similar feelings in my partner and the love of my life, Dr.

Kristin Razzeca, confirming my discovery at age fourteen that girls like piano players.

"There's something to be said for keeping at a thing," said Frank Sinatra. "Keeping at" playing piano, along with hiking and reading, balances my daily therapeutic work with patients wonderfully. I'm grateful for the part making music plays for many of us in the practice of this most interesting and useful profession of medicine.

Dr. Steve Walsh (pictured top right) is a private-practice psychiatrist in San Francisco and Mill Valley. He is past president of the SFMS, the Northern California Psychiatric Society, and of the UCSF Association of the Clinical Faculty. He is a member of the editorial board and of the psychiatric services committee of the SFMS.

Herb Peterson, MD

What I'm about to describe is certainly not unique to physicians, or to musicians either. However, it probably helps to be one or the other (or both) to appreciate the process a bit better.

I have been a physician and psychiatrist for more than forty years, and I've been involved in performing music most of that time. I have played in a number of informal and jazz



situations, alone and with small groups. Probably my personal favorite is a setting where I play solo piano for a small gathering, and they are kind enough to listen and request other songs that I might know. I, in return, will sometimes play an old tune and see if someone in the group knows it. That person then gets to request my next song. Then the process repeats. I can play for hours like that, and sometimes do.

In recent years, I have taken special pride in being able to play a request for an obscure song, one written perhaps fifty to seventy-five or more years ago. Sometimes the "bridge" or connecting portion of the song is the hardest part to resurrect, both for myself and for the listener. But in recent years, this process seems to have become easier, especially for the older melodies. I play a few notes and wait, and the remainder will often present itself to my mind. I then realize it has been there all along, but I'm simply not interfering with its recall. Sometimes I'll awaken with a song in my mind and will quickly run and play it before it becomes obscured by the pressure of daily activities and thoughts. Often my wife will recognize and name this

Continued on Page 38...



Northern California Physician Opportunities

Sutter Health offers a wide variety of practice styles, geographies, and life styles.

With facilities in Northern California from the Oregon Border to the Central Valley, and from the Pacific Coast to the Sierra Foothills, you have boundless career opportunities to fit your goals.

We have open opportunities in a variety of specialties. Contact us for more information.

Sutter Health
Physician Recruitment
866-448-7070
916-454-6645 fax
docjobs@sutterhealth.org
www.sutterhealth.org



Sutter Health

Community Based, Not For Profit

Hot Jobs

Cardiology
Dermatology
Family Practice
Gastroenterology
General Surgery
Hospitalist
Internal Medicine
OB-GYN
Orthopedic Surgery
Otolaryngology
Psychiatry
Radiology
Surgical Oncology Breast
Urgent Care
Urology

Other opportunities available



Living Both Music and Medicine
Continued from Page 36...

song even if I can't, since many were popular when we were both young.

I really can't claim any special "talent" for this, for the following reasons: First of all, it seems to be getting stronger as I become older, and the songs are often associated with joyful times and experiences from long ago. Second, other friends have mentioned that they experience the same thing, and for them too, it appears to develop with age.

And third, it seems a lot like other forms of recall that have been reported by many others—the POWs who, attempting to keep their minds sharp, would enable themselves to remember the entire composition and seating position of their grade school classes, or the adults who can paint entire, elaborate street scenes that they have not seen since childhood. Dr. Oliver Sacks has written about this. It's simply that music is very meaningful to me and has always been an important complement and background to my medical practice; so it's natural that it would be the "language" of my recall.

I would encourage others to probe and experiment as I have, whether with music or with some other form of experience. I'm sure you'll find a treasury of nearly forgotten memories awaiting you.

Dr. Herb Peterson (pictured top left) is a Clinical Professor of Psychiatry Emeritus at UCSF.

Matthew L. Springer, PhD

I'm not sure how loudly I should say this, but I suspect that I might have finished my PhD thesis at Stanford a couple of weeks earlier had I not been commuting to Oakland in the evenings to fiddle in the pit orchestra for a musical theater production of *Big River*. I even had a role on stage as a fiddler. I would write parts of my thesis and do experiments at lab during the day, then drive up to Oakland to change and put on the stage makeup, play the show, wash up, and drive back to Stanford to continue writing into the middle of the night on the "lab computer" (which gives you a hint about how long ago this was).

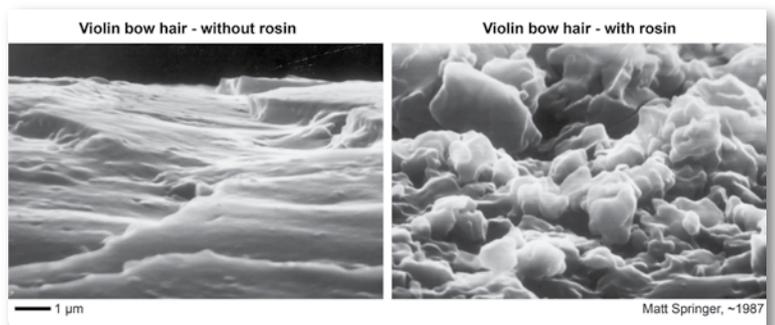
This kind of double life has been a frequent occurrence throughout my years as a scientist, although typically not involving as much mileage. As a UCSF professor, I unfortunately do not have time these days to participate in long-term theater engagements, but I do still manage to play in the Peninsula Symphony and have published several musical arrangements, as well as a couple of articles for *Strings Magazine*. While I've been tempted occasionally to add these arrangements and articles to my CV, the medical and musical aspects of my life intertwine but usually don't merge. To describe it in twenty-first century terms, my home page has one link to my lab's website and another link to my music website, but you can't move directly from one site to the other.

In what way, then, has my music had an impact on my scientific life? Well, it has done so on several levels. On one level, playing music alone and in groups, and arranging or composing music, enriches my life in general. That may sound like a cliché, but as I discovered during more than half a year in 2001–2002, when I had to completely stop playing music due to a physical problem, life devoid of musical involvement went from being in color to being in black and white. On a level more specific to science, it's important for clinicians to realize that while they can watch people get better in real time, the lab scientist can

work on a project for a whole year without necessarily seeing tangible evidence of progress, even if progress is indeed occurring. With music, you put in the effort, you see a result; whether we are referring to practicing a difficult passage, learning how to improve tone, or watching ideas from your head and beyond accumulate on paper in a composition. For me, this aspect has been a great tonic for the frustration that is so frequently dominant in scientific research.

But the most important and direct impact that music has had on my scientific life is that it provides the balance that so many people lack. Science is cerebral; it is thinking, questioning, experimenting, doubting, proving, with much less room for "feeling" than one might expect from listening to Captain Kirk explain to Spock about the role of human intuition in decision making. It is this analytical component of our lives that benefits from a scientific career, but we are more than our cerebrums. I tell people in my lab to take breaks from sectioning tissue with a cryostat to avoid straining their back, take breaks from the microscope to avoid straining their eyes; and music allows one to avoid straining one's mind and allows the more innate part of one's humanity to take over for a while.

On rare occasions, I have allowed these two aspects of my life to collide, usually with surreal and unique consequences. Take for example "The Myoblast Song," which I wrote about my research during my postdoctoral years and which has been performed at more than a few conferences and seminars; or the couple of scanning electron micrographs that I took of my violin bow hair while I was taking hundreds of other pictures of fungal spores back in graduate school (see figure). But in general, I do manage to switch gears, temporarily forgetting about frustrating experiments and grant proposals and instead





focusing entirely on playing the music for a while. Sometimes scales are exercises to be practiced, and other times they are used to weigh chemicals, but either way they function as a balance.

Matthew L. Springer (above) is an Assistant Professor of Medicine in the UCSF Division of Cardiology and a violinist/percussionist in the Peninsula Symphony. “The Myoblast Song” can be seen and heard at <http://homepage.mac.com/matthewspringer/MyoblastSongPointer.html>.

Kirsten E. Fleischmann, MD, MPH, FACC

I am a musician. I’m also a mother, physician, wife, researcher, and teacher—but my involvement with music predates all the others. Music, with its ability to both reflect and shape my mood, has supported me through the rigors of medical training, even when it meant getting up at 5:30 a.m. to ensure that rounds and notes were done before an afternoon performance, or stealing away from a rehearsal when the muted buzz of my pager called. I am by no means unique in this double life.



In this calling to both medicine and music, I follow in the footsteps of eminent physicians such as Theodor Billroth and Albert Schweitzer. Billroth, a well-known surgeon in the second half of the nineteenth

century, was also a talented violinist and close friend of the composer Johannes Brahms. Schweitzer, on the other hand, was already a theologian and accomplished organist when he decided to become a medical missionary in French Equatorial Africa. Even today, doctors’ orchestras thrive in many cities, paying tribute to an unseen highway connecting medicine and music.

This also makes music a wonderful way to connect with both colleagues and patients. At a recent *Messiah* performance, I found myself smiling at a string player in our shared joy at performing Handel’s classic. Only later, at the reception, did I learn that she, too, was a physician, struggling as I do to maintain this passion for music, this beloved avocation, against the demands of career and family. Another colleague of mine, who professes no special performing talent, nonetheless possesses an encyclopedic knowledge of classical music and its history, and I learn something from every conversation. The connection with some of my patients is equally strong. When I mourned the loss of Lorraine Hunt Lieberson’s powerful voice and presence with a patient recently, she not only commiserated but thoughtfully brought to her next visit a copy of the *New Yorker*’s eloquent eulogy to Lieberson. Others have appeared at my concerts, sometimes unintentionally but more often to cheer on their singing doctor. Whether we are discussing jazz saxophone, hopes for a nascent rock band, or the tranquility of an unaccompanied cello suite, music forms invisible bonds between people. It is a language that largely transcends cultural and linguistic barriers, allowing for a fuller and more three-dimensional relationship with patients and colleagues.

It is said that the brains of musicians are different than those of others in auditory, motor, and visual-spatial areas, and that they have a larger corpus callosum (Gaser and Schlaug 2003). As a cardiologist, I have no firsthand knowledge in this area, but I do know that my life has been different, and infinitely richer, because of music. Like many others, I play multiple roles in life. I like to think I’m better at all of them than I would be otherwise, because “musician” is on the list.

Dr. Fleischmann (Pictured lower right) is a cardiologist and Associate Professor of Clinical Medicine at the UCSF, as well as a mezzo-soprano who performs in the Bay Area.

Medicine as Art: As Told by a Medical Student-Musician



Interview by Whitley Hill

Photograph by J. Adrian Wylie

Jane Lee is a first-year medical student originally from Steilacoom, Washington, and a violinist with the Life Sciences Orchestra. The orchestra consists of members of the life sciences community from across the University of Michigan and is part of the Health System’s Gifts of Art program.

“I started playing when I was five years old. Initially, it took a lot of practice and repetition—and squeaking. Being a violinist has taught me the value of years of training and practice, the attention to detail and all the time it takes to produce a finished product, to master a skill. Once the foundation is set, you develop your own style and expression. It’s the same with medicine. That’s why I like the depiction of medicine as an art.

“The Life Sciences Orchestra was a huge draw for me. At the audition, I asked one of the organizers if he taught in the School of Music and learned he’s actually a professor of dermatology. It gave me some perspective—that I can continue playing music throughout my medical career.

“I saw one of my professors after our last rehearsal. It’s great to be able to talk to her about medicine, but also to be playing music alongside her without being in a hierarchy.”—Jane Lee

Reprinted with permission from *Medicine* at Michigan Magazine.

2008 San Francisco Medical Society Annual Dinner



Above: SFMS 2008 Officers from left to right: Editor Mike Denney, MD, PhD; Treasurer Michael Rokeach, MD; Immediate Past President Stephen Follansbee, MD; President Steven Fugaro, MD; President-Elect Charles Wibbelsman, MD; and Secretary Gary Chan, MD

Below: SFMS Member and Editor of San Francisco Medicine, Mike Denney, MD, PhD, playing the piano alongside his wife, Leonie



Held on January 24, 2008, at the Concordia-Argonaut Club in San Francisco, the 2008 SFMS Annual Dinner was a great success! SFMS members enjoy a fantastic meal while Steven Fugaro, MD, was installed as the 2008 SFMS president. Dr. Fugaro then honored the fifty-year members of the SFMS, as well as the Past Presidents and the SFMS staff before moving on to present the keynote speaker, Steven Schroeder, MD. Dr. Schroeder spoke about healthy lifestyle choices and the importance of reducing obesity and smoking in America. As usual, the SFMS Annual Dinner was a fantastic opportunity for members to meet and mingle with other members and is not to be missed next year!



Above: Steven Fugaro and Stephen Follansbee with SFMS Executive Director Mary Lou Licwinko, JD, MHSA



Above: Steven Fugaro honors the 50-year members

Right: Steven Fugaro, Mary Lou Licwinko, Stephen Follansbee, Richard Wolitz, MD, and Annette White enjoying the dinner

Our thanks to the following corporate sponsors who helped make the 2008 SFMS Annual Dinner possible:

- California Pacific Medical Center
- Chinese Hospital Medical Staff
- Kaiser Permanente San Francisco
- Marsh Affinity Group Services
- Saint Francis Memorial Hospital
- Saint Mary's Medical Center

With special thanks to:

- Duramed Pharmaceuticals, Inc., a subsidiary of Barr Pharmaceuticals, Inc.
- Medical Insurance Exchange of California
- Union Bank of California

This program was also supported in part by an educational grant from Eli Lilly and Company (which had no control over its content).

Right: SFMS Director of Public Health and Education Steve Heilig, MPH, with SFMS member Katherine Margolin, MD, and her husband and SFMS Board Member Rob Margolin, MD



Top Right: SFMS Past-Presidents Xavier Barrios, MD, and Art Lyons, MD



We Can Do Better Improving the Health of the American People

Editor's Note: This year at the San Francisco Medical Society's Annual Dinner Steven Schroeder, MD, presented the audience with a keynote speech on the health of the American people. What follows is a shortened version of his paper on which the speech was based.

The United States spends more on health care than any other nation in the world, yet it ranks poorly in nearly every measure of health status. How can this be? What explains this apparent paradox?

Pathways to Improving Population Health—Addressing Personal Behaviors

Health is influenced by five domains—genetics, social, environmental, behavioral, and that of health care. When it comes to reducing early deaths, medical care has a relatively minor role. Even if the entire American population had access to excellent medical care—which it does not—only a small fraction of these deaths could be prevented. By contrast, the single greatest opportunity to improve health and reduce premature deaths lies with personal behavior. Behavioral causes of deaths in the United States, account for nearly 40 percent of all deaths. It is clear that obesity and smoking are the top two behavioral causes of premature mortality.

Clinicians and policymakers may question whether behavior is susceptible to change or whether attempts to change behavior lie outside the province of traditional medical care. If the public's health is to improve, however, it is more likely to come through behavioral change than technological innovation. Experience demonstrates that it is possible to change behavior, as illustrated by seat belt use and consumption of products high in saturated fats. But tobacco best demonstrates how rapidly positive behavior change can occur.

The Case of Tobacco

Smoking prevalence among American men declined from 57 percent in 1955 to 23 percent today, and among women from 34 percent in 1965 to 18 percent. Why did tobacco use fall so rapidly? The Surgeon General's 1964 report linking smoking and lung cancer was followed by multiple reports connecting active and passive smoking to myriad other diseases. Early antismoking

advocates, initially isolated, became emboldened by the cascade of scientific evidence, especially about the risk of secondhand smoke exposure. Laws, regulations, and litigation, particularly at the state and community level, led to smoke-free public places and raises of the tax on cigarettes—two of the strongest evidence-based tobacco control measures. In this regard, local governments have been far ahead of the federal government, and new medications augmented face-to-face and telephonic counseling techniques to increase the odds that clinicians could help smokers quit.

But there are still 44.5 million smokers in the United States, and tobacco use kills 435,000 Americans each year. They die up to fifteen years earlier than non-smokers, with those final years often ravaged by dyspnea and pain. In addition, smoking among pregnant women is a major contributor to premature births and infant mortality. Smoking is increasingly concentrated in the lower socioeconomic classes as well as among those with mental illness and/or substance abuse. Our Smoking Cessation Leadership Center at UCSF estimates—based on the high rates and intensity of tobacco use in these populations—that as many 200,000 of the 435,000 premature tobacco deaths occur in persons with chronic mental illness and/or substance abuse problems. Understanding why these patients smoke and how to help them quit should be a key national research priority.

The United States is approaching a tobacco “tipping point.” Some segments of the American population already have very low rates of smoking. When Kaiser Permanente of Northern California implemented a multisystem approach to help smokers quit, its smoking rates dropped to 9 percent. Two basic strategies would enable the United States to meet its Healthy People 2010 tobacco use objectives of 12 percent population prevalence: prevent young people from starting to smoke, and help smokers quit. Of these, smoking cessation brings by far the largest short-term impact. Of the current 44.5 million smokers, 70 percent claim they would like to quit. Merely increasing the baseline quit rate from the current 2.5 percent of smokers who quit to 10 percent—a rate seen in placebo groups in most published trials of new cessation drugs—would prevent 1,170,000 premature deaths. No other medical or public health intervention approaches this degree of impact! And we already have the tools to accomplish it.

Could Obesity be the Next Tobacco?

Although there is still much to do in tobacco control, it is nevertheless touted as a model for combating obesity, the other major potentially preventable cause of death and disability. Smoking and obesity share many characteristics. Obesity differs, however, from tobacco in many ways. The binary definition of smoking status (smoker or not)

does not apply to obesity. The body mass index, the closest to an obesity gold standard definition, misclassifies as overweight persons with large muscle mass—such as California’s governor. It is not biologically possible to stop eating, and minimal amounts of food are not hazardous, in contrast to light smoking. There is no addictive analogue to nicotine in food. Nonsmokers mobilize against tobacco because they fear injury from secondhand exposure, a peril absent for obesity. The food industry is less concentrated than the tobacco industry, and while its advertising practices have been criticized as predatory to children and deceptive regarding content of ingredients, it has yet to fall into tobacco’s ill repute. For these reasons, litigation is a more problematic strategy and industry payments less likely. Finally, except for the invasive option of bariatric surgery, obesity treatment has even fewer clinical tools than does tobacco cessation.

Some policy instruments, however, do exist to combat obesity. Selective taxes and subsidies could be used as incentives to change what foods are grown, brought to market, and consumed, though the politics involved in designating favored and penalized food components would be fierce. Restrictions could also apply to the use of food stamps. Given recent data that children see from twenty-seven to forty-eight food advertisements for each single ad promoting fitness or nutrition, regulations could require shifting that balance and/or participating in sustained social marketing efforts, such as the truth® campaign in tobacco. Requiring more accurate labeling of caloric content and ingredients, especially in fast-food outlets, could sensitize customers to what they eat. Better pharmaceutical products and counseling programs could motivate clinicians to view obesity treatment more enthusiastically. In contrast to these policies, which require either national legislation, regulation, or research investment, momentum is already building at the local level. Some schools have banned the sale of soft drinks and now offer more balanced lunches. Opportunities for physical activity at work, in school, and in the community have been enhanced in a small but expanding number of locations.



Concentrating on the Less Fortunate

Since all the actionable determinants of health—personal behavior, social factors, health care, and the environment—disproportionately affect the poor, strategies to improve national health rankings must concentrate on this population. Citizen health advocacy in the United States commonly coalesces around particu-

lar illnesses, such as breast cancer, HIV/AIDS, or autism. These efforts are led by middle-class advocates whose lives have been touched by the disease. There have been a few successful public advocacy campaigns on issues of population health—efforts to ban exposure to secondhand smoke or to curtail drunk driving—but these are relatively uncommon. Because the biggest gains in population health will come from attention to the less well off, the lack of a political voice arguing for more resources to improve healthy behaviors, reduce social disparities, increase access to health care, and reduce environmental threats will perpetuate the status quo. Additionally, America’s rhetorical emphasis on individual responsibility creates a reluctance to intervene in what are seen as personal behavioral choices.

How Can the Nation’s Health Improve?

Improving population health would be more than a statistical accomplishment. It could enhance the workforce and national economy, reduce health care expenditures, and—most importantly—improve the lives of those affected and their families. But absent a strong political voice from the less fortunate themselves, it becomes incumbent upon health professionals, especially physicians, to become champions for better population health. Such a role resonates with our deepest professional values, and it is why many of us chose medicine as a profession. It is also one of the most productive expressions of patriotism. We take great pride in asserting that we are number one in wealth, Nobel prizes, and military strength. Why don’t we try to become number one in health? **sfm**

Dr. Schroeder is Distinguished Professor of Health and Health Care, Division of General Internal Medicine, UCSF, where he also heads the Smoking Cessation Leadership Center. Between 1990 and 2002 he was President and CEO of the Robert Wood Johnson Foundation. Dr. Schroeder graduated from Stanford University and Harvard Medical School. This paper is an edited version of the “Shattuck Lecture” published in the New England Journal of Medicine, 2007;357:1221-8. The full original article, with references, is posted at www.sfms.org.

The Art Corner

Cabinet

Walnut and Glass
George Kimmerling, MD



Dr. Kimmerling, an endocrinologist by day, has been an amateur wood worker for the past thirty years. Over that time he has “enjoyed switching gears from my day job” to work on projects such as this one. This cabinet currently calls Dr. Kimmerling’s family dining room home.

Would you like to submit artwork to be featured in San Francisco Medicine?

Contact Amanda Denz, the managing editor, to find out how to submit paintings, drawings, sculpture, poems, short stories, and any other creations you would like to share, at adenz@sfms.org or (415) 561-0850 extension 261. SFMS is also currently seeking submissions to be considered for the 2008 SFMS Directory cover. Contact Therese Porter, tporter@sfms.org or (415) 561-0850 extension 268.

HOSPITAL NEWS

KPSF

Robert Mithun, MD



Saint Francis

Wade Aubrey, MD



The fact that many physicians are also accomplished musicians comes as no surprise. Overlaps between the two disciplines are many, and each informs the practice of the other. To wit, the intense training, the fundamental acquisition of skills, and the necessary attention to detail are all obligatory for mastering the finer points of both medicine and music.

“I think many physicians have become excellent musicians because they have discovered the similarities between the two,” notes William Strull, MD, an internist and assistant physician-in-chief at Kaiser Permanente San Francisco. “The analogy between music and medicine—the actual mechanics, individual expression, finding creativity within the structures that exist, and making informed decisions—are all key aspects to practicing sound medicine and being an accomplished musician.” What happens within the structures is where individual expression comes into play.

Repetition is another area of overlap between the two areas. When a physician sees a patient, there are certain protocols and procedures that are done routinely that become the “practice” of the daily functions. A musician brings that same set of rules to his or her instrument. “Depending on the day or the situation, both a physician and musician may bring something new to the work, and that’s where creativity happens,” says Dr. Strull. Additionally, many physicians have explored both the therapeutic aspects of music for themselves and their patients. Organizations such as the American Music Therapy Association use music to address the physical, emotional, cognitive, and social needs of individuals in various stages of both illness and wellness. Music therapy and interventions help to promote wellness, manage stress, alleviate pain, enhance memory, and improve communication, among other things. As a therapeutic tool, used in conjunction with medically established protocols, music is one of our greatest aids and means of communication.

At Saint Francis Memorial Hospital, we’re pleased to announce the award of \$80,000 in grants to five local organizations promoting community health. The grant-making is part of the hospital’s ongoing commitment to improve the health of Bay Area residents most at risk. Saint Francis is particularly committed to programs that impact discharge services for the homeless; the disenfranchised and isolated; and frail, elderly hospital patients.

Grantees were selected on the basis of meeting the hospital’s core funding principles, which include providing for unmet health needs, primary prevention, continuum of care, and capacity building. Other selection factors included the organization’s long-term stability and proximity to SFMH.

The following organizations received grants that range from \$10,000 to \$25,000: St. Anthony’s Free Medical Clinic Recuperation Program; Glide Health Services Recuperation Program; South of Market Health Center Recuperation Program; San Francisco Senior Center; and San Francisco Community Clinic Consortium. Recipients were honored at the annual grants award breakfast cohosted by SFMH’s sister hospitals, Saint Mary’s Medical Center and Sequoia Hospital.

These grants are part of more than \$3 million in grants awarded by SFMH’s parent company, Catholic Healthcare West. CHW’s community grants program is funded through donations from its member hospitals, which contribute .05 percent of their previous year’s audited expenses to the program. Grant awards typically range from \$2,000 to \$50,000. Since 1990, CHW has awarded nearly \$30 million in grants to local nonprofit organizations.

In closing, I’d like to offer my thanks to all my Bay Area colleagues in recognition of National Doctors’ Day on March 30.

St. Mary's
Richard Podolin MD



The ability of music to promote healing was studied by Pythagoras, the Greek mathematician, physician, and musicologist, in about 500 B.C. But the use of music in healing significantly predates that. Modern studies have documented many salutary effects of music, including decreasing heart rate and blood pressure, decreasing the need for analgesic medications and anesthesia, and lowering stress-induced catecholamine levels. Music therapy has been used for patients who have brain injuries, physical disabilities, chronic pain, Alzheimer's disease, and other disorders, and it has enough empiric support that it is now a reimbursable service under Medicare.

In recent years, the scientific study of the way we process and recall music has advanced our understanding of how the brain functions, not just in auditory processing but also in its ability to organize information and make and recall memories. As Daniel Levitin, a neuroscientist at McGill University, has so lucidly described in his recent book, *This is Your Brain on Music*, processing music requires almost every region of the brain, including the cochlear nuclei, the auditory cortices, the brain stem, the hippocampus, the amygdala, the frontal lobes, and perhaps most surprisingly, the cerebellum. The influence of musical experiences can start even before we are born. In one carefully controlled study, one-year-old infants preferentially selected music that had been played repeatedly while they were in utero, even if they were not exposed to that music after birth. This scientific, utilitarian aspect of music as a therapeutic or investigative tool should not obscure its more profound—if more common—effect: the enrichment music brings to our lives by enhancing our emotional experience and bringing its own joy. At St. Mary's Medical Center, we recognize that excellent medical care requires attention to the emotional and spiritual, as well as the physical, needs of our patients and their families.

UCSF
Ronald Miller, MD



Arts and medicine have integrated to create the UCSF Dance Medicine Center, a new clinical program of the Department of Orthopaedic Surgery. Designed to meld education, research, and medical and surgical care into a premier facility for dance injury diagnosis, treatment, and prevention, the Center is under the direction of Nancy Kadel, MD, associate professor and a former dancer and dance teacher. In addition to screening evaluations and treatment, dancers will be able to participate in research projects. The Center will provide injury-prevention programs for dancers, dance teachers, parents, and health care providers. The Center can be reached at (415) 885-3668.

A UCSF neurosurgery team has reported significant results of a new brain mapping technique that allows for the safe removal of tumors near language pathways in the brain. The technique minimizes brain exposure and reduces the amount of time a patient must be awake during surgery. Reported in the *New England Journal of Medicine* (January 3, 2008), the UCSF findings also provide new data that refines scientific understanding of how language is organized within the human cortex. Senior study author is Mitchel Berger, MD, chair of the Department of Neurological Surgery and director of the UCSF Brain Tumor Research Center.

In the largest study to date that evaluates the outcome of in-hospital care by various physician types, findings show that care by hospitalists resulted in shorter stays and lower costs to patients. Researchers from UCSF co-led the study, published in the December 20, 2007 issue of the *NEJM*. Compared to general internists, patients cared for by hospitalists had modestly lower costs and a length of stay shortened by 12 percent. The two groups exhibited similar mortality and hospital readmission rates. The study is based on data from forty-five hospitals nationwide. Andrew Auerbach, MD, MPH, UCSF associate professor of medicine, is senior author.

Veterans
Diana Nicoll, MD,
PhD, MPA



The San Francisco V.A. Medical Center (SFVAMC) recently opened its newly remodeled 3D Imaging Laboratory—an expanded state-of-the-art laboratory that offers the latest in 3D visualization methods.

The concept of a 3D imaging laboratory was developed in 2002 by SFVAMC's Chief of Radiology Services Judy Yee, MD, who conducted novel research on virtual colonoscopy (CT colonography) as a new technique for colorectal cancer screening. This test made use of the data obtained from CT scanners and combined it with graphic software to create two- and three-dimensional images of the colon that the radiologist can use for patient diagnosis. The clinical impact of the virtual colonoscopy has been significant, and the SFVAMC was one of the first facilities in the country to make it available to veterans. This test is now used clinically at other sites throughout the world.

The new 3D Imaging Laboratory houses many state-of-the-art postprocessing workstations with the multiple different computer platforms needed to address the expanding use of 3D imaging in everyday patient care. This imaging is now used for coronary CT angiography, aneurysm evaluation, musculoskeletal applications, CT urography, and brain/body perfusion techniques.

Because of this expanded technology, researchers are now able to perform cutting-edge research using the best imaging tools available. The various computer platforms are also used to teach advanced 3D imaging to the medical students, residents, and fellows that rotate through SFVAMC's Department of Radiology.

This laboratory will allow the SFVAMC to continue to be a leader in the field of 3D imaging and will provide for excellence in clinical care, research, and teaching.

IN MEMORIAM

Nancy Thomson, MD

Rudi Schmid, MD

Rudi Schmid, MD, a liver specialist and medical educator, passed away at his home in Kentfield on October 20, 2007 of pulmonary failure. He was 85.

Dr. Schmid was an early champion of establishing organ transplant centers to make donor livers widely available. In 1983, sixteen years after the first successful liver transplant, he led a panel convened by the National Institutes of Health to consider the efficiency of performing the transplants on a larger scale. In that year, the survival rate in the first year after a liver transplant was 20 to 25 percent. Now it is offered by about 100 facilities around the country and the survival rate in the first year is 85 to 90 percent.

Dr. Schmid was born in Ennenda, Switzerland, the son of two general practitioners. He received his medical degree from the University of Zurich before earning a doctorate in medical sciences from the University of Minnesota in 1954. He also became an American citizen in that year.

He taught medicine for more than thirty-five years, beginning at Harvard before moving to the University of Chicago and finally to San Francisco, where he was dean of UCSF from 1983 to 1989. He retired in 1995.

While he was dean at UCSF, some students raised concerns that the school was emphasizing research at the expense of basic

medical education. In response, Dr. Schmid introduced faculty evaluations, undertook an initiative to improve the effectiveness of the teaching, and helped establish a track on the curriculum for the study of primary care and community medicine. He also promoted an international exchange program for students and faculty members, particularly with Peking Union Medical College.

His work in hepatology had begun in the 1950s with studies of porphyrias. He and others developed a rat model to study the enzymes of heme (in hemoglobin), which, when disrupted, lead to neurological problems and mental disturbances. He also investigated the chemistry of bilirubin and, with neurologist Dr. Ivan Diamond and others, looked at ways to prevent this product of heme breakdown from passing into the brain in cases of childhood jaundice, an event that can cause brain damage.

Dr. Schmid was a former president of the American Association for the Study of Liver Diseases and the Association of American Physicians. He was also a member of the National Academy of Sciences.

He is survived by his wife, the former Sonja Wild of Kentfield; a son, Peter, of Daly City; a daughter, Isabelle Franzen of Cape Town, South Africa; and a grandchild.

11TH ANNUAL CALIFORNIA HEALTH CARE LEADERSHIP ACADEMY

"Creating the Future of Health Care"

FUTURE SCAN 2008

- The Future of Organized Medical Staffs
- Measuring Physician Quality and Efficiency
- Megatrends in Health Care
- Health Care Reform and the Future of Medicare
- Wal-Mart and the Future of Health Care
- Population Diversity and Health Care
- Medical Professionalism and the Future of Health Care
- Emerging Legal Issues in Medicine
- Medical Politics Behind the Scenes
- Organizational Leadership Skills for Physicians



CONTINUING MEDICAL EDUCATION

The California Medical Association is accredited by the Accreditation Council for Continuing Medical Education to provide continuing medical education for physicians. The California Medical Association designates this educational activity for a maximum of 19 AMA PRA Category 1 Credits™. Physicians should only claim credit commensurate with the extent of their participation in the activity. This credit may also be applied to the CMA Certification in Continuing Medical Education.

MAY 2-4, 2008

DISNEY'S GRAND CALIFORNIAN HOTEL®

Anaheim, California



For registration information, call
1-800-795-2262 or visit our website
at www.cmanet.org/leadership

Plus – practice management workshops for physicians and office staff:

- How to Make Pay for Performance Work for You
- Avoiding Malpractice Lawsuits
- Avoiding Liability as an Employer
- How to Select and Purchase an EHR System
- Contract Analysis and Negotiation
- How to Set Your Fee Schedule
- Aligning Practice Financial Management and Personal Financial Planning

Looking for Long Term Care Insurance?



You are not alone. Every day, more and more members are evaluating their need for long term care insurance. They hear about it on TV, read articles in magazines, get information off the Internet, receive offers through the mail and have sales agents calling them.

With so many products and places to choose from, where do you turn for assistance?

As a member of San Francisco Medical Society, you don't have to worry. That's because you have access to Long Term Care Insurance specialists from Marsh, the Society's sponsored insurance program broker and administrator.

When you call Marsh at **1-800-747-5123 ext. 7221**, you'll get the first-rate service you deserve from licensed consultants.

Your Society-endorsed Long Term Care Insurance Consultant will ...

- ★ Tell you about the 5% member discount offered by two insurance carriers
- ★ Offer needs-based analysis based on your personal situation and budget
- ★ Help guide you through the long term care insurance buying process
- ★ Custom-tailor a plan for you

What's more, you'll never be pressured to buy and you're never under any obligation.

Discuss this important decision with a source you can trust.

 **Call toll-free
1-800-747-5123 ext. 7221 today.**

Sponsored by: 

Administered by: **MARSH**

WHERE DO YOU SEND Your Patients with End-Stage Heart Disease?

California Pacific Medical Center's Adult Heart Transplant and End Stage Heart Disease Programs offer leading-edge therapies plus quality care and compassion for patients needing:

- Late stage heart failure diagnosis and therapy
- Temporary percutaneous total cardiac support
- Heart transplantation
- First- and second-generation LVAD devices for bridge-to-transplantation
- Permanent implantable cardiac support devices

Acute and chronic heart failure, acute myocardial infarction with shock, cardiovascular collapse, heart-based secondary organ failure and post-cardiac surgery acute heart failure are now all selectively treatable with good results using a variety of recent drugs and devices – but timing is crucial.

California Pacific is a certified CMS destination therapy center for patients with end-stage heart failure who are ineligible for a transplant due to age, additional health problems or other complications. We go "beyond medicine" by being the only Bay-area hospital to provide a dedicated nursing unit for heart failure, VAD and transplant patients, featuring:

- Private rooms
- Beds available 24/7 for your emergency transfers
- Family room outfitted for patient and family's use with exercise and video equipment
- A dedicated, specially-trained nursing staff
- > 90% patient satisfaction scores

We also go beyond medical care and provide our patients and families with disease counseling, spiritual support and reduced rates for patient and family housing.

Heart Transplant Outcomes

	1 Yr CPMC	1 Yr National	3 Yr CPMC	3 Yr National
Patient Survival	82.61	85.15	88.24	82.13
Graft Survival	84.00	84.81	89.47	79.28

Source: SRTR Data released 07/2007 and CPMC internal data

 For more information: 888-637-2762

The Adult Heart Transplant and End Stage Heart Disease Program is associated with California Pacific's Heart and Vascular Center, which offers quality, comprehensive, patient-centered cardiovascular care by a team of pioneering physicians integrating leading-edge technology.

OUR TEAM OF SURGEONS & CARDIOLOGISTS combined have over 80 years of heart failure, heart transplant and VAD experience:

J. Donald Hill, M.D.

G. James Avery, M.D.

Preben Brandenhoff, M.D.

Ernest Haeusslein, M.D.



A Sutter Health Affiliate
With You. For Life.

www.cpmc.org

Beyond Medicine.