Mayo School of Continuing Medical Education

2nd Annual
International Spine Surgery Symposium 2007

January 21 - 25, 2007
Mauna Lani Hotel & Bungalows
Big Island, Hawaii

REGISTER NOW!
**Course Description**

This program is designed for surgeons and non-operative clinicians with a special interest in the treatment of spinal disorders. The latest advances in the field will be presented through didactic lectures, panel discussions, and case presentations. An audience response system and lively discussion will make the symposium interactive.

This year’s program highlights include:

- Minimally Invasive Surgery
- Artificial Disk Replacement and Non Fusion Technology
- Non Operative Treatment of Back and Limb Pain
- Evaluation and Treatment of Spinal Tumors
- Cervical Myelopathy and Radiculopathy
- Advances in the Treatment of Spinal Trauma

**Date**

*Mayo Clinic’s Spine Surgery Symposium* will begin on Sunday morning, January 21 and conclude on Thursday afternoon, January 25, 2007.

**Course Learning Objectives**

Upon conclusion of this program, participants should be able to:

- Evaluate the results of surgical and non-surgical management options for spine and limb pain.
- Identify patient selection criteria for artificial disk replacement and other non-fusion technologies.
- Discuss current techniques of cervical decompression and stabilization.
- Describe the pros and cons of minimally invasive spinal procedures.
- Formulate treatment options for spinal trauma.
- Recognize evidence-based evaluation and treatment options for spine care.

Attendance at this Mayo course does not indicate nor guarantee competence or proficiency in the performance of any procedures which may be discussed or taught in this course.

**Travel**

American Airlines is the official carrier for this Mayo course. Reduced airfares are available for participants by calling American Airlines at 800-433-1790/817-267-2222 or the designated travel agency, AAA, at 800-888-5908. Please reference this course under star file #S9988 by destination and date. AAA can also assist you with ground transportation. Ask about special car rental rates. It is recommended that all guests arrive on the island at the Kona International Airport.

Aloha Taxi Company provides ground transportation to and from Mauna Lani Bay Hotel & Bungalows. Pre-arrangements may be made by calling the hotel concierge directly at (808) 885-6622. The fare for one-way transportation is $57. There is no airport shuttle service available.

*Travel arrangements are the sole responsibility of the individual registrant.*

**Credit**

Mayo Clinic College of Medicine is accredited by the Accreditation Council for Continuing Medical Education to provide continuing medical education for physicians.

Mayo Clinic College of Medicine designates this educational activity for a maximum of 24.75 AMA PRA Category 1 Credits™. Physicians should only claim credit commensurate with the extent of their participation in the activity.

**Educational Grants**

This course is supported, in part, by educational grants in accordance with ACCME Standards. At the time of this printing, a complete listing of commercial supporters was not available. Appropriate acknowledgment will be given to all supporters at the time of the meeting and on our website.

Exhibits will be available for viewing during the breakfasts and all scheduled breaks.

[www.mayo.edu/cme/spine](http://www.mayo.edu/cme/spine)
Course Location

*Mayo Clinic’s International Spine Surgery Symposium* will be headquartered at the Mauna Lani Bay Hotel & Bungalows on the Kohala Coast, Big Island of Hawaii. Covering 4,028 square miles, the Big Island (or the “Orchid Isle”) is the youngest and largest of the Hawaiian Islands – twice the size of all the other major islands combined. And with two of the five volcanoes that created the island still active, it continues to grow. Twelve distinct climate zones exist here, ranging from east Hawaii’s tropical rain forests and Mauna Kea’s frozen tundra to Ka’u’s arid desert in the south. Though the average temperature on the Big Island ranges from 71 to 77 degrees Fahrenheit in the coastal regions (with temperatures in the low 70’s October through April), the summits of Mauna Kea and Mauna Loa are often blanketed with snow. For more information on all of the Hawaiian Islands, access the Hawaii Visitors & Convention Bureau at 888-424-2924 or www.gohawaii.com.

The Mauna Lani Bay Hotel and Bungalows is located 20 minutes north of the Kona International Airport. This Kohala Coast beachfront oasis offers guests a commanding view of five surrounding peaks; the Kohala Mountains, Mauna Kea, Mauna Loa, Hualalai and Haleakala. Three miles of shoreline are home to green sea turtles, tropical fish, ancient fishponds and prehistoric petroglyphs. Traditionally known as Kalahuipua’a, ancestral home of Hawaiian royalty, the Mauna Lani was designed to take advantage of the raw beauty of the Kohala Coast.

Resort amenities include five dining venues, the Mauna Lani Spa, a Sports & Fitness Club, Tennis Club, two championship golf courses, water sports and a year round children’s camp. Located along the world’s most secluded island chain, guests can enjoy whale watching, sailing, and world-class snorkeling with complimentary equipment.

Inland activities available include eco-touring, visiting nearby art galleries, coffee farms and historic locations. A marine curator and cultural historian on staff at the resort will help guests optimize their visit in the unique ecology and ancient history of Mauna Lani. Additional information on the resort is available at www.maunalani.com

Reservations

A special discounted room rate of $250 per night is available to course participants from January 18 – 27, 2007. Rooms are ocean view, single or double occupancy. These rates are subject to the prevailing Hawaii State General Excise and Room Occupancy taxes, currently at a combined rate of 11.42% (subject to change). Lodging accommodations are available on a first-come first-serve basis. Please register for the course first and secure lodging reservations early to avoid disappointment. Cutoff date for all lodging reservations is **December 21, 2006**. Reservations will be taken after this date based on space and rate availability.

To make your reservation, contact the Mauna Lani Bay Hotel & Bungalows directly and indicate that you are attending the *Mayo Spine Surgery* course.

Mauna Lani Bay Hotel & Bungalows
68-1400 Mauna Lani Drive
Kohala Coast, Hawaii 96743-9796
1-808-885-6622
<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
<th>Presenters</th>
</tr>
</thead>
<tbody>
<tr>
<td>6:30 a.m.</td>
<td>Registration &amp; Breakfast</td>
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<tr>
<td>7:15 a.m.</td>
<td>Opening Remarks</td>
<td>Bradford L. Currier, M.D., Michael J. Yaszenski, M.D., Ph.D.</td>
</tr>
<tr>
<td>7:20 a.m.</td>
<td>Disk Replacement/Motion Preservation</td>
<td>Michele Crites Battié, Ph.D.</td>
</tr>
<tr>
<td>7:40 a.m.</td>
<td>Epidemiology and Genetics of Lumbar Disk Degeneration</td>
<td>Michele Crites Battié, Ph.D.</td>
</tr>
<tr>
<td>7:50 a.m.</td>
<td>The Disk and Lower Back Pain...Current Evidence for the Disk as a Primary Pain Generator</td>
<td>Ralph E. Gay, M.D.</td>
</tr>
<tr>
<td>8:00 a.m.</td>
<td>Adjacent Segment Degeneration</td>
<td>Brian K. Kwon, M.D., Ph.D.</td>
</tr>
<tr>
<td>8:20 a.m.</td>
<td>Basic Science of Spinal Arthroplasty</td>
<td>Paul A. Anderson, M.D.</td>
</tr>
<tr>
<td>8:40 a.m.</td>
<td>Lumbar Disk Arthroplasty: Why Has it Been Less Successful Than Anticipated?</td>
<td>Todd J. Albert, M.D.</td>
</tr>
<tr>
<td>9:00 a.m.</td>
<td>Regulatory Issues</td>
<td>Michael J. Yaszenski, M.D., Ph.D.</td>
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<tr>
<td>9:20 a.m.</td>
<td>Question &amp; Answer Session, Case Presentations and Panel Discussion</td>
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<tr>
<td>10:00 a.m.</td>
<td>Refreshment Break</td>
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<tr>
<td>11:00 a.m.</td>
<td>Cervical Myelopathy and Radiculopathy</td>
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<tr>
<td>10:30 a.m.</td>
<td>Foraminal Decompressions</td>
<td>K. Daniel Riew, M.D.</td>
</tr>
<tr>
<td>10:50 a.m.</td>
<td>Multi-Level CSM Treatment Options: North American Perspective</td>
<td>John G. Heller, M.D.</td>
</tr>
<tr>
<td>11:10 a.m.</td>
<td>Long Term Results of Expansive Open-Door Laminoplasty for Cervical Spondylolytic Myelopathy &amp; OPLL of the Cervical Spine</td>
<td>Kazuhiko Chiba, M.D.</td>
</tr>
<tr>
<td>11:30 a.m.</td>
<td>Midline T-saw Laminoplasty for Cervical Myelopathy</td>
<td>Katsuro Tomita, M.D.</td>
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</tbody>
</table>

**Monday January 22, 2007**

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
<th>Presenters</th>
</tr>
</thead>
<tbody>
<tr>
<td>7:00 a.m.</td>
<td>Breakfast Roundtable Forum</td>
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<tr>
<td>8:00 a.m.</td>
<td>Non Operative Treatment of Back, Neck and Limb Pain</td>
<td></td>
</tr>
<tr>
<td>8:20 a.m.</td>
<td>Pharmacology &amp; Medications for Musculoskeletal &amp; Neuropathic Pain Syndromes</td>
<td>Randy A. Shelerud, M.D.</td>
</tr>
<tr>
<td>8:40 a.m.</td>
<td>Contemporary Uses of Spinal and Peripheral Neurostimulation &amp; Intrathecal Pump</td>
<td>Mark A. Huntoon, M.D.</td>
</tr>
<tr>
<td>9:00 a.m.</td>
<td>The Rapid Growth of Injections, Opiates and Fusions: Doing Good or Doing Well?</td>
<td>Richard A. Deyo, M.D., M.P.H.</td>
</tr>
<tr>
<td>9:20 a.m.</td>
<td>Question &amp; Answer Session</td>
<td></td>
</tr>
<tr>
<td>9:40 a.m.</td>
<td>Refreshment Break</td>
<td></td>
</tr>
<tr>
<td>10:10 a.m.</td>
<td>Evaluation and Treatment of Spinal Tumors</td>
<td></td>
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<tr>
<td>10:10 a.m.</td>
<td>Cryoablation of Spine/ParaSpinal Metastatic Lesions</td>
<td>Matthew R. Callstrom, M.D., Ph.D.</td>
</tr>
<tr>
<td>10:30 a.m.</td>
<td>Minimizing Complications in Patients with Metastatic Disease of the Spine</td>
<td>Alan M. Levine, M.D.</td>
</tr>
<tr>
<td>10:50 a.m.</td>
<td>Long Term F/U of Total En Bloc Spondylectomy Patients Treated by Our Surgical Strategy</td>
<td>Katsuro Tomita, M.D.</td>
</tr>
</tbody>
</table>
## Program Schedule

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
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</thead>
</table>
| 11:10 a.m. | Spinal Cord Tumors: Mundane and Rare  
Richard W. Marsh, M.D.                              |
| 11:30 a.m. | Reconstruction Following Lumbopelvic Resections  
Michael J. Yasemska, M.D., Ph.D.                  |
| 11:50 a.m. | Question & Answer Session, Case Presentations and Panel Discussion                             |
| 12:10 p.m. | Adjourn                                                                                         |

### Monday January 22, Evening Session

#### Non Operative Treatment of Back, Neck and Limb Pain

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
<th>Speaker(s)</th>
</tr>
</thead>
</table>
| 5:00 p.m. | Radiofrequency Ablation for Axial Back Pain  
Mark A. Hunttoon, M.D. |                                                 |
| 5:20 p.m. | The Chiropractic Profession – Who They Are, How They Think, and How They Practice  
Ralph E. Gay, M.D. |                                                 |
| 5:40 p.m. | Is it Time to Abandon the Injury Model of LBP?  
Michele Crites Battiet, Ph.D. |                                                 |
| 6:00 p.m. | Low Back Pain Patients: Risk Factors for Chronicity  
Randy A. Shelerud, M.D. |                                                 |
| 6:20 p.m. | Back Pain in Primary Care: Can We Minimize the Emergence of Chronic Pain?  
Richard A. Deyo, M.D., M.P.H. |                                                 |
| 6:40 p.m. | Question & Answer Session                                             |
| 7:00 p.m. | Adjourn                                                               |

### Tuesday January 23, 2007

#### Minimally Invasive Surgery and Image Guidance

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
<th>Speaker(s)</th>
</tr>
</thead>
</table>
| 8:00 a.m. | Stereotactic Fluoroscopic Navigation for Spinal Instrumentation  
Barry D. Birch, M.D. |                                                 |
| 8:20 a.m. | Advantages of Image Guidance in Revision Spinal Fusion Surgery  
Eric W. Nottmeier, M.D. |                                                 |

### Wednesday January 24, 2007

#### Evaluation and Treatment of Spinal Tumors

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
<th>Speaker(s)</th>
</tr>
</thead>
</table>
| 8:00 a.m. | Stereotactic Radiosurgery in the Treatment of Spinal Tumors  
Alan M. Levine, M.D. |                                                 |
| 8:20 a.m. | Malignant Primary Tumors of the Cervical Spine and Craniovertebral Junction  
William E. Krauss, M.D. |                                                 |
| 8:40 a.m. | Pearls for Performing Total en bloc Spondylectomy: Is Spinal Shortening a Pitfall or Tip?  
Katsuro Tomita, M.D. |                                                 |
Program Schedule

Thursday January 25, 2007
7:00 a.m.  Breakfast Roundtable Forum
Course Faculty

Minimally Invasive Surgery and Image Guidance
8:00 a.m.  Case Study - Microendoscopic Approach for Intradural Lesions
Barry D. Birch, M.D.

8:20 a.m.  Percutaneous Fixation in Select Spine Trauma
Mark B. Dekutoski, M.D.

8:40 a.m.  Point & Surface Matching Registration for Image-Guided Spinal Surgery
Eric W. Nottmeier, M.D.

9:00 a.m.  Percutaneous Fixation in Disk Space Infection
Mark B. Dekutoski, M.D.

9:20 a.m.  Question & Answer Session

9:40 a.m.  Refreshment Break

Disk Replacement/Motion Preservation
10:10 a.m.  Cervical Disk Replacement from Pre-Clinical Testing to Preliminary Human Trials
John G. Heller, M.D.

10:30 a.m.  Clinical Outcomes of Cervical Arthroplasty
Paul A. Anderson, M.D.

10:50 a.m.  Regeneration of the Disk
Todd J. Albert, M.D.

11:10 a.m.  Non-Arthroplasty – Non Fusion Technology, Evolutions and Innovations
Mark B. Dekutoski, M.D.

11:30 a.m.  Interspinous Spacers
Paul A. Anderson, M.D.

11:50 a.m.  Question & Answer Session, Case Presentations and Panel Discussion

12:10 p.m.  Course Directors’ Closing Comments/ Participant Course Evaluation
Bradford L. Currier, M.D., Michael J. Yaszemski, M.D.

Wednesday, January 24, Evening Session
Advances in the Treatment of Spinal Trauma
5:00 p.m.  Anterior Screw Fixation for Odontoid Fracture – Indications and Results
Kazuhiko Chiba, M.D.

5:20 p.m.  C1-2 Fusion Techniques
Bradford L. Currier, M.D.

5:40 p.m.  Vertebral Artery Injury
K. Daniel Riew, M.D.

6:00 p.m.  Subaxial Cervical Trauma
Brian K. Kwon, M.D., Ph.D.

6:20 p.m.  Anterior vs Post Approach for TL Trauma
Alexander R. Vaccaro, M.D.

6:40 p.m.  Question & Answer Session, Case Presentations and Panel Discussion

7:00 p.m.  Adjourn

www.mayo.edu/cme/spine
General Information

Children’s Camp

So both parents and children can enjoy their time in Hawaii, youngsters are invited to attend Camp Mauna Lani. This day camp runs year-round for children ages five through 12. Qualified, attentive counselors serve as much more than babysitters. Camp attendees spend their days learning as well as playing. Activities include visiting tidal pools, historic fishponds and petroglyphs, playing Hawaiian games and learning Hawaiian crafts. The schedule varies each day, so children have an opportunity to take part in a wide variety of activities while meeting new friends. For additional information contact the hotel directly by calling 1-808-881-7911 or at concierge@maunalani.com.

Welcome Reception

Sunday, January 21, 2007
Attendees and their guest(s) are cordially invited to join the course faculty for the Welcome Reception on Sunday evening January 21, 2007 at the Milo Tree Lawn of the Mauna Lani Bay Hotel & Bungalows. This casual reception welcomes you to Hawaii, officially opens the course, and offers you the perfect opportunity to make connections with existing and new colleagues. Pre-registration is requested, guest tickets are available.

Registration

To register online, visit www.mayo.edu/cme/spine or complete the attached registration form and return by mail or fax.

Registration (continued)

The $995 physician/$895 allied health registration fee includes tuition, daily continental breakfast, break refreshments, and the Sunday evening welcome reception. If your guest(s) would like to attend the course reception, the cost is $40 per adult.

Although it is not Mayo School of CME policy to limit the number of registrants for a course, conference room facilities may necessitate closing of enrollment; therefore, early registration is advised. A letter of confirmation will be sent upon receipt of payment and completed registration form. Please present the confirmation letter when checking in at the meeting registration desk.

Cancellation Policy

If you cancel your participation in this course, your registration fee, less a $75 administrative fee, will be refunded when written notification is received by Mayo School of CME before January 7, 2007 (fax#: 507-284-0532). No refunds will be made after January 7, 2007.

Mayo School of CME reserves the right to cancel or postpone any course due to unforeseen circumstances. In the unlikely event Mayo School of CME must cancel or postpone this course, Mayo School of CME will refund the registration fee, but is not responsible for any related costs, charges, or expenses to participants, including fees assessed by airline/travel/lodging agencies.
MAYO CLINIC COLLEGE OF MEDICINE COURSE DIRECTORS:
Bradford L. Currier, M.D.
Professor of Orthopedics
Rochester, Minnesota

Michael J. Yaszemski, M.D., Ph.D.
Professor of Orthopedics and Biomedical Engineering
Rochester, Minnesota

DISTINGUISHED GUEST FACULTY:
Todd J. Albert, M.D.
Professor of Orthopaedic & Neurosurgery
Jefferson Medical College
Thomas Jefferson University
Vice Chairman, Department of Orthopaedics
Thomas Jefferson University Hospital
Philadelphia, Pennsylvania

Paul A. Anderson, M.D.
Associate Professor of Orthopedic & Neurological Surgery
University of Wisconsin
Madison, Wisconsin

Kazuhiro Chiba, M.D.
Professor of Orthopaedic & Neurological Surgery
University of Wisconsin
Madison, Wisconsin

Kazuhiko Chiba, M.D.
Associate Professor
Director, Section of Spine & Spinal Cord Surgery
School of Medicine
Keio University
Tokyo, Japan

Michele Crites Battié, Ph.D.
Professor, Department of Physical Therapy,
Faculty of Rehabilitation Medicine
University of Alberta
Tier 1 Canada Research Chair in Common
Spinal Disorders
Edmonton, Alberta Canada

Richard A. Deyo, M.D., M.P.H.
Professor, Department of Biomedical Science
School of Public Health
University of Washington
Seattle, Washington

John G. Heller, M.D.
Professor of Orthopaedic Surgery
Spine Fellowship Director, The Emory Spine Center
Department of Orthopaedic Surgery
Emory University School of Medicine
Atlanta, Georgia

Brian K. Kwon, M.D., Ph.D., FRCS
Assistant Professor, Department of Orthopaedics
International Collaboration on Repair Discoveries
University of British Columbia
Vancouver, BC

John G. Heller, M.D.
Professor of Orthopaedic Surgery
Spine Fellowship Director, The Emory Spine Center
Department of Orthopaedic Surgery
Emory University School of Medicine
Atlanta, Georgia

K. Daniel Riew, M.D.
Professor, Orthopaedic Surgery
Washington University School of Medicine
Chief, Cervical Spine Surgery, Cervical Spine Institute & Center for Shoulder & Elbow Surgery
St. Louis, Missouri

Katsuro Tomita, M.D.
Professor and Chairman, Department of Orthopaedic Surgery
Kanazawa University
Kanazawa, Japan

Alexander R. Vaccaro, M.D.
Professor of Orthopedic Surgery & Neurosurgery
Jefferson Medical College
Thomas Jefferson University
Philadelphia, Pennsylvania

MAYO CLINIC COLLEGE OF MEDICINE FACULTY:
Barry D. Birch, M.D.
Assistant Professor of Neurosurgery
Scottsdale, Arizona

Matthew R. Callstrom, M.D., Ph.D.
Assistant Professor of Radiology
Rochester, Minnesota

Mark B. Dekutoski, M.D.
Associate Professor of Orthopedics
Rochester, Minnesota

Ralph E. Gay, M.D.
Assistant Professor of Physical Medicine & Rehabilitation
Rochester, Minnesota

Paul M. Huddleston, III, M.D.
Instructor in Orthopedics
Rochester, Minnesota

Mark A. Huntoon, M.D.
Associate Professor of Anesthesiology
Rochester, Minnesota

William E. Krauss, M.D.
Associate Professor of Neurosurgery
Rochester, Minnesota

Richard W. Marsh, M.D.
Professor of Neurosurgery
Rochester, Minnesota

Timothy P. Maus, M.D.
Assistant Professor of Radiology
Rochester, Minnesota

Eric W. Nottmeier, M.D.
Assistant Professor of Neurosurgery
Jacksonville, Florida

Randy A. Shelrud, M.D.
Assistant Professor of Physical Medicine & Rehabilitation
Rochester, Minnesota
REGISTRATION FORM 2007R696

Mayo Clinic International Spine Surgery Symposium
January 21 – 25, 2007  •  Kohala Coast, Big Island, Hawaii

Please complete the registration form and return by fax or mail. The registration fee includes tuition, daily continental breakfast, break refreshments, and the Monday evening welcome reception. If your guest(s) would like to attend the course reception, the cost is $40 per adult. The online registration form and a complete symposium program are available at http://www.mayo.edu/cme/spine

Mail or FAX form with payment to:
Mayo School of Continuing Medical Education
200 First Street SW
Rochester, MN 55905

Phone 800-323-2688 or 507-284-2509
FAX 507-284-0532
E-mail cme@mayo.edu
Web site www.mayo.edu/cme/spine

Contact Information

Name of Registrant - first name, middle name or initial, and last name
Degree - select all that apply
☐ MD ☐ DO ☐ PhD ☐ PA
☐ Other - specify:

Name of Institution
Medical Specialty

Work/Business Address - street address
Work Phone - include all country and city/area codes as needed along with complete phone number

City State or Province ZIP or Postal Code Country

Home Address - street address
Home Phone - include all country and city/area codes as needed along with complete phone number

City State or Province ZIP or Postal Code Country

E-mail Address FAX - include all country and city/area codes as needed along with complete phone number
FAX Location - select one
☐ Work/Business ☐ Home

If you have special assistance needs or dietary restrictions, describe here:

Credit/Registration Fee

Sunday Evening Welcome Reception
Does registrant plan to attend? ☐ Yes ☐ No Complimentary
Guest ticket(s) for Sunday Evening Reception:
_____ number of tickets @ $40 each per adult guest (age 18 and over) $ __________

Registration
Physicians/Scientists $995 USD $ __________
Residents/Physician Assistants $895 USD $ __________

Payment Information

☐ Check is enclosed in the amount shown at right - make checks payable to Mayo Foundation
Payment Total

Credit Card - select one Account Number Exp Date - mm/yy
☐ Discover ☐ MasterCard ☐ Visa

Name of Cardholder - as it appears on the card Signature of Cardholder - required
2nd Annual
International Spine Surgery Symposium

January 21-25, 2007

Mauna Lani Bay
Hotel & Bungalows
Kohala Coast, Big Island, Hawaii

If you already received a copy of this brochure, please give this brochure to an interested colleague.