

VOCAL VIBRATIONS

FALL
2002

national center for voice and speech ▼ Ingo R. Titze, Ph.D., executive director

The Denver Center for the Performing Arts expands the National Center for Voice and Speech

The Gould Voice Center at **The Denver Center for the Performing Arts** is getting a new name. Henceforth, it will be known as the **National Center for Voice and Speech (NCVS)**.

The DCPA has long been an institutional member of the National Center for Voice and Speech, which was established by a congressional mandate to create regional centers of research in hearing, voice, speech, language, taste, smell and balance on four campuses across the nation (The University of Iowa, The Denver Center for the Performing Arts, The University of Utah and The University of Wisconsin, Madison). Due in large part to the expanded facilities in the soon-to-be-completed Tramway Building and the fact that NCVS Director **Dr. Ingo Titze** is now spending much of his time in Denver, the NCVS can merge its overall operations with those of the Gould Voice Center under the one name—the National Center for Voice and Speech. This gives The Denver Center for the Performing Arts larger stewardship over one of the nation's most prestigious national resources in voice research, information dissemination and voice care. It adds to the already unprecedented merger of a voice laboratory and a performing arts center. And although the NCVS presence will expand in Denver, the long standing collaborative relationship between the DCPA and The University of Iowa's internationally recognized Department of Speech Pathology and Audiology will continue to exist, through Dr. Titze's involvement in both Denver and Iowa and through such programs as the Summer Vocology Institute.

Speaking about the move, Dr. Titze said, "The Denver Center for the Performing Arts has demonstrated extraordinary vision. It is showcasing the excellence of the human voice in its theatrical productions together with a better understanding of the human voice in scientific and medical terms. Nowhere on earth have voice professionals been so well received as in this performing arts center. Denver is once again a frontier city where old traditions of 'apartheid' between the arts and the sciences are not accepted. I am delighted to expand the operations of the National Center for Voice and Speech at The Denver Center. DCPA Founder and

Chairman **Donald R. Seawell** is a visionary man, and I have greatly appreciated his support. Vocal performers need us, as athletes need their trainers, physicians and exercise physiologists. I hope our Denver model of a professional 'voice and speech campus' will



The Tramway Building will expand the National Center for Voice and Speech

become an inspiration to other performing arts centers."

"The designation of our voice center as the National Center for Voice and Speech," said DCPA Chairman Donald R. Seawell, "is both a high honor and the recognition of the outstanding work being done by Dr. Titze and his colleagues."

Dr. Wilbur James Gould will continue to be duly honored as the founding father of the Denver facility, even though his name will no longer be a part of the title of the Center itself.

For further information, please contact **John Nix** at 303/893-4000 ext. 4887 or by e-mail at jnix@dcpa.org. ■

"The Denver Center for the Performing Arts has demonstrated extraordinary vision. It is showcasing the excellence of the human voice in its theatrical productions together with a better understanding of the human voice in scientific and medical terms."

—Ingo R. Titze, Ph.D., Executive Director

GREETINGS FROM
THE NATIONAL CENTER
FOR VOICE AND SPEECH

This is the second issue of *Vocal Vibrations*, our new newsletter, which is designed to help keep you, our friends, clients, workshop participants, board members, fellow researchers and former students aware of the exciting work happening at The National Center for Voice and Speech, the world's only voice research and clinical care facility affiliated with a performing arts center. We hope you find this newsletter informative and interesting. We invite you to take a few minutes and read about the latest news from one of Denver's treasures, the National Center for Voice and Speech at The Denver Center for the Performing Arts.



MEET THE STAFF

JILL PETSKA, M.S., CCC-SLP, Speech-Language Pathologist and Research Associate at the National Center for Voice and Speech, joined Dr. Lorraine Ramig's research team in July of this year. She moved from Phoenix, Arizona where she was working with children who had speech and language disorders. Jill was raised in Highland, Indiana. She became interested in speech-language pathology in high school when her grandfather suffered a stroke. She saw the effects a stroke had on his communication and decided to pursue a career in the field. Jill attended Indiana University in Bloomington, IN and earned a Bachelor of Arts degree in Speech and Hearing Sciences (May 1999). She continued her education at the University of Arizona in Tucson and earned a Master of Science degree in Speech-Language Pathology (May 2001). While at the University of Arizona, Jill was a Research Assistant and studied speech breathing in normal adults and dysarthric speakers. In addition, she has treated children and adults with a variety of speech and language disorders. Jill enjoys reading, hiking and running. This winter she plans to learn how to ski. ■



JAN G. SVEC, PH.D., Visiting Scientist at the National Center for Voice and Speech, is a physicist whose special interest is in voice and voice physiology. He came to the NCVS from the Centre for Communication Disorders, Medical Healthcom, Ltd., Prague, the Czech Republic. He has a M.Sc. degree in Physics (in Optics and Fine Mechanics) from Palacky University in Olomouc, Czech Republic, a Ph.D. in Biophysics from Palacky University and a Ph.D. in Medical Sciences from The University of Groningen, The Netherlands. His thesis titles are *Studies of the Mechanical-Acoustical Properties of the Human Voice Source* (Palacky University) and *On Vibration Properties of Human Vocal Folds: Voice Registers, Bifurcations, Resonance Characteristics, and the Development and Application of Videokymography* (University of Groningen). Since 1993 he has been closely cooperating with Prof. Dr. H.K. Schutte and Dr. D.G. Miller in the Voice Research Lab at the University of Groningen, the Netherlands. He designed and, together with Prof. Dr. Schutte and the Lambert Instruments BV company, developed a new method for the high-speed imaging of vocal fold vibration called Videokymography. Since 1996, at the time of his affiliation at the Centre for Communication Disorders, Medical Healthcom in Prague, the method started being applied in clinical practice for the purpose of a more detailed diagnostics of voice disorders by Assoc. Prof. Dr. Frantisek Sram. Dr. Svec has been working on further applications, improvement and development of this method. He has published more than 50 scientific papers (20 as the first author) in journals and proceedings and contributed to more than 100 presentations, 50 of which he personally presented at Scientific Congresses, Symposia and Seminars in Europe, USA and Australia. His video program, "Introduction to Videokymography," coauthored by H. K. Schutte and F. Sram, received The Best Scientific Video Award (Silver Medal) at the XVI. World ORL Congress in Sydney, Australia in 1997.

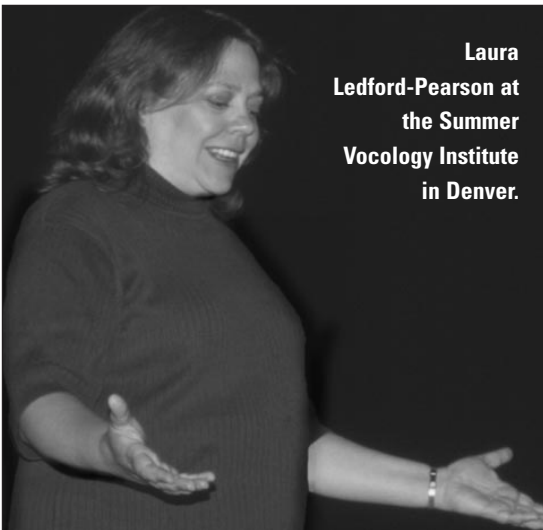
Jan Svec is an amateur jazz singer, guitar player and song composer. From 1983 to 1992 he was the leader of an acoustic-jazz group PIANO, which received major Czech national awards (e.g., PORTA 1989). He and his wife, Hana, live in Denver. ■



Strangers in Paradise: Summer Vocology Institute in Denver

BY LAURA LEDFORD-PEARSON

Since the summer of 2000, voice professionals have convened in Denver for graduate-level courses in "vocology," the science and practice of voice habilitation, developed by Dr. Ingo Titze. Those familiar with the literature of voice science will recognize Titze as one of the world's foremost voice researchers. The SVI offers nine gradu-



Laura Ledford-Pearson at the Summer Vocology Institute in Denver.

ate credits in an intensive, three-block program over about eight weeks every summer. Denver, in the summer, is a treat in itself.

Block 1 is Titze's "Principles of Voice Production." On the first day, my friend JR Fralick (a tenor with a DMA in Vocal Pedagogy) and I met the other students, an international mix of singers, speech/language pathologists, graduate researchers and theatre voice trainers. We settled in for three weeks of what we thought would be "review." After all, we knew the physiology of the vocal mechanism. We would probably be asked to be guest lecturers later in the week, once Dr. Titze realized how advanced we were. Then came the second day. Everything was going well until Dr. Titze said, "And then, of course, you must factor in the gravitational force of the earth." JR and I gasped. Dr. Titze and many of our classmates stared at us with shock and disbelief. Clearly, we were morons who had no business taking this course.

We had a handful of degrees between us but, unfortunately, none were in physics.

You see, voice science is all about physics. Physics is spoken in a foreign language called "math." I knew enough math to calculate a tip, and JR had one of those tiny calculators you get when you open a checking account. Bring it! Soon we were studying viscosity tables, learning fluid mechanics (there's more than Bernoulli, folks) and making stress/strain measurements with duct tape and a scrunchy. We were learning just how much we DIDN'T know.

We survived "Principles," then left Denver, planning to return the following summer for Blocks 2 and 3. Over the course of the next school year, we both found that our enhanced knowledge of vocal function paid off everyday.

Block 2 consisted of two courses: "Instrumentation for Voice Analysis" and "Voice Habilitation." "Instrumentation" meant gadgets, software and cutting-edge technology. We recorded, analyzed and even scoped each other while learning everything you ever wanted to know about vocal fold vibration.

We learned about electromyography, spectrographic analysis, and videokymography (a new method of observing actual fold vibration using television technology) and more. In "Habilitation" we learned a variety of therapeutic techniques to assess and improve usage.

Along with the work of speech/language pioneers and singing pedagogues, we also covered the works of Lessac, Berry, Linklater and Rodenburg. (I felt smart again!)

Block 3 was "Singing Pedagogies." I had the option of taking "Voice for the Actor," but I decided to venture out of my comfort zone. I confess I was a bit intimidated by the depth of talent and teaching experience among the singers in the class, but I managed to hold my own, and I learned a tremendous amount of singing vocabulary and pedagogy both in theory and practice.

Toward the end of the SVI, JR and I fantasized about opening our own shop. We would have all the latest gadgets and a roster of clients ranging from "normal" folks to actors and singers who would flock to us for instruction and habilitation. We knew our limits: we were not equipped to offer medical diagnoses, but we could identify many usage problems and teach exercises to enable improvement. Our fantasies soon confronted fiscal realities, but our training at the SVI had opened many doors for us. For now, JR continues to teach singing and I continue to teach voice and acting, but we teach with more depth, precision and confidence than ever before.

If you are a voice professional, consider taking advantage of the Summer Vocology



Taylor Ferranti (I.) sings for guest voice faculty member Oren Brown.

Institute's unique offerings. It's a challenging program with world-class instruction in a great location. Treat yourself to a real calculator. HINT: the force of the earth's gravity is 9.8 meters per second, squared.

For more information about the SVI, visit the website of the National Centers for Voice and Speech at www.ncvs.org/vocinstitute or contact John Nix, the SVI administrative coordinator, at the Summer Vocology Institute, 1245 Champa Street, Denver, CO 80204; 303/446-4887 phone; 303/260-7471 fax

Laura Ledford-Pearson, MFA, is an Assistant Professor of Theatre at Millikin University in Decatur, IL, where she teaches acting and voice. Her friend JR Fralick is on the voice faculty at Baldwin-Wallace Conservatory in Cleveland, OH. This article originally appeared in the VASTA newsletter, Volume 16, no. 1.

Editor's note: The SVI is a joint program offered through the University of Iowa, the NCVS and the DCPA, with academic credits granted by the University of Iowa's Center for Credit Programs.

IN THE NEWS ▶▶▶

Effective July 1, The Denver Center for the Performing Arts united all of its educational programs into one department. This new department of the DCPA, which is under the direction of Daniel Renner, includes the DCPA's highly successful Denver Center Theatre Academy, the congressionally-chartered National Theatre Conservatory, and now the very popular SCFD-funded Voice Workshops and Voice Outreach Seminars.

Florence B. Blager, Ph.D., continues in her role as director of Voice Workshops and Voice Outreach Seminars within the Education Department. Workshop attendees can expect the same great content and quality they have always experienced; the changes are simply administrative.



Florence B. Blager, Ph.D.

PHOTO BY MELANIE SIMONET

Due to construction in the Tramway Building, this year's Voice Workshops will be held in the Donald R. Seawell Grand Ballroom. The next pair of workshops is scheduled for Saturday, January 25, 2003, from 10am to 12pm and Tuesday, January 28, 2003, from 4-6pm. The topic for the workshops is the singing voice.

The same material will be presented at both of the workshop dates. For more information, or to register online for one of the workshops, please visit the DCPA's website at www.denvercenter.org.

The NCVS has been very active this summer and fall with conferences. The Center hosted The International Conference on Vocal Physiology and Biomechanics September 13-16. Fifty-seven scientists from around the world gathered at the Comfort Inn and the Pinnacle Club for a long weekend of presentations. Center staff also attended and presented research at the Voice Foundation meetings in Philadelphia in June, the National Association of Teachers of Singing Conference in San Diego in July, the International Conference on Spoken Language Processing in Denver in September, the International Conference of Otolaryngology in Cairo, Egypt in September, and the Physiology and Acoustics of Singing Conference in Groningen, the Netherlands in October.

The NCVS will have a large presence at this fall's gathering of the **American Speech-Language-Hearing Association (ASHA)** in Atlanta in November. Upcoming meetings over the winter include the Pan-American meeting of the **Acoustical Society of America** in Cancun, Mexico in December and the annual meeting of the **American Association for the Advancement of Science (AAAS)** in Denver in February. ■

ADVISORY BOARD

The National Center for Voice and Speech has an independent group of advisors to help guide its activities. Made up of leading educators, business leaders, public officials and professional voice users, this board formed during the summer of 2001 and meets on a quarterly basis. The board's goals are to assist the Center in educating the community about the services and information provided by the NCVS; to assist the NCVS in achieving maximum impact from its affiliations with other research facilities and the National Institutes of Health; to advise the NCVS Executive Director and NCVS staff in planning the most relevant research, outreach and clinical services; to help promote and publicize the work of the NCVS, and voice use in general, in the professional and lay communities; and to form task forces which address specific aspects of NCVS operation. The chair of the board is Mark Heckler, dean of the College of Arts and Media at The University of Colorado at Denver. For more information about the board and how you can work with them to further the work of the NCVS in the community, contact John Nix at 303/446-4887.

VOICE CENTER STAFF

VOICE RESEARCH

Ingo R. Titze, Ph.D.
Lorraine Ramig, Ph.D., CCC-SLP, Senior Scientist
Jan G. Svec, Ph.D., Research Scientist
Mona Abaza, M.D.
Peter S. Popolo, M.S.E.E.
Kate Emerich, B.M., M.S., CCC-SLP
Angela Halpern, M.S., CCC-SLP
Jennifer Spielman, M.M., M.A., CCC-SLP
Jill Petska, M.S., CCC-SLP

CLINICAL VOICE CARE SPECIALISTS

Mona Abaza, M.D., Associate Medical Director
Florence B. Blager, Ph.D., CCC-SLP
Kate Emerich, B.M., M.S., CCC-SLP
Angela Halpern, M.S., CCC-SLP
Jennifer Spielman, M.M., M.A., CCC-SLP
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VOICE RESEARCH CONSULTANTS

Brad H. Story, Ph.D.
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Thea Carruth, M.P.H.,
Assoc. Director of Grants Administration
John Nix, M.M., M.M.E., Associate Director
for Administration and Education
Myrna Burt, Administrative Assistant

PROFESSIONAL EDUCATION

Ingo R. Titze, Ph.D.
John Nix, M.M., M.M.E.,
Summer Vocology Institute Coordinator

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RESEARCH ROUNDUP

In September, visitors from The University of Chicago, The University of Aberdeen, Scotland and The University of Arizona joined the

PARKINSON DISEASE

research team at the National Center for Voice and Speech to discuss launch of the data collection for the five-year NIH grant awarded to **Dr. Lorraine Ramig** and her team. Researchers discussed the planned studies of communicative gesture, facial expression, swallowing and neural imaging. Research findings from these collaborators were featured at the International Conference on Spoken Language Processing in Denver at a special session on intensive voice treatment for Parkinson disease (LSVT). Findings from the development of the LSVTC (a personal digital assistant for LSVT) were presented by **Angela Halpern** and Dr. Ramig at the Coleman Institute Symposium at The University of Colorado-Boulder campus. The Parkinson research team also welcomed **Jill Petska** in July, who joined the staff after completing her studies in Arizona, and congratulates **Jennifer Spielman** on receiving her certificate of clinical competence (CCC-SLP) from the American Speech-Language-Hearing Association.



Dr. Lorraine Ramig

PHOTO BY MELANIE SIMONET

testing the voice dosimeter (a Compaq iPAQ 3765 pocket computer which has been modified for voice data collection), which will be worn by the teacher subjects in the classroom. In October, the Center hired **Jennie Kawulok** as a dosimeter field support technician and held an orientation session for the subjects on how to wear and operate the device. Teachers will begin wearing the dosimeter for data collection purposes in early November.

The **OCCUPATIONAL SAFETY IN VOCALIZATION** team made great progress in the summer and fall of 2002. Fifty teachers went through baseline vocal examinations during the summer with **Kate Emerich** and **Dr. Mona Abaza**. At the same time, **Peter Popolo**, **Karen Rogge-Miller**, **Dr. Ingo Titze** and **Dr. Jan Svec** continued modifying and

CLINICAL CORNER

**Kate A. Emerich, M.S., CCC-SLP
and Mona M. Abaza, M.D.**

On September 12, the Voice Center hosted a meeting of otolaryngologists and speech-language pathologists from the Denver metro area who have an interest in voice and speech. **Dr. Mona Abaza** gave a short presentation on how the Center would like to function as a resource for the voice community. Following this presentation, attendees shared ideas about how to communicate, cooperate and collaborate with each other more effectively. A tour of NCVS' research and clinical facilities was available for newcomers to the area. As a result of this meeting, plans were made to gather as a community of voice professionals on a more frequent basis. Future meetings may include sessions on sharing clinical ideas, exploring new research tools and results, discussing difficult cases, examining new topics in the field of voice, and sharing recent journal ideas.

New members are encouraged to join this discussion group. If you would like more information, please contact Dr. Mona Abaza at mona.abaza@uchsc.edu.



**Mona M. Abaza, (l.)
and Kate A. Emerich**

PHOTO BY MELANIE SIMONET

With winter fast approaching, Denver's dry climate is getting even drier. Add to that low humidity increased particulate pollution on days with temperature inversions, blowing dust on days with Chinook winds, and cold temperatures, and you have quite a recipe for voice problems. If winter's woes get you down, give the voice care professionals at the National Center for Voice and Speech a call at 303/389-4696. ■

The Denver Post Makes Generous Gift To NCVS Facility Campaign

The Denver Center for the Performing Arts recently received a major gift from *The Denver Post* and its publisher, DCPA Trustee Dean Singleton, in support of the new NCVS library in the Tramway Building. Referring to the gift, Dean Singleton said, "The Denver Post has a long-standing tradition of supporting the arts in our community. We are proud to put our name on the outstanding new library for the National Center for Voice and Speech in the Tramway Building. It is exciting to have scientific research on the voice within the context of a world-class performing arts center." This library will allow staff and guests to access voice and speech books, scientific and pedagogical journals, article reprints, sound and video recordings and online databases. The library will be highly utilized by all research and clinical staff, as well as students attending the Summer Vocology Institute.



Dean Singleton

Other naming opportunities are still available. If you would like to be a part of the Center's Capital Campaign, fill out the donor information card below and mail it back in with your donation. Gifts of any size are appreciated. Here is a list of giving levels and benefits we would like to give to you in return for your donation:

- \$50,000** Your name on the NCVS Classroom or the NCVS Reception Area.
- \$15,000** Your name on one of the six labs in the new research facility.
- \$10,000** Your name on either the NCVS Conference Room, one of the two Clinical Exam Rooms, or on one of the three Voice Therapy Rooms.
- \$5000-\$9999** Your name on a fellowship for visiting researchers plus all of the benefits listed below.
- \$2500-\$4999** Your name on a scholarship to the Summer Vocology Institute plus all the benefits listed below.
- \$1000-\$2499** An invitation to the Grand Opening of the renovated Tramway Building, plus all the benefits listed below.
- \$500-\$999** Your name on a lobby plaque recognizing all larger gifts plus all the \$100 level benefits.
- \$100-\$499** A copy of the NCVS *Guide to Vocology*, a CD of the Summer Vocology Concert, and the video, *The World Within Your Voice* will be mailed to you.

YES, I WANT TO HELP WITH THE TRAMWAY RENOVATION PROJECT BY GIVING A GIFT IN THE AMOUNT OF \$_____.

I have enclosed a check for \$_____.

Name (as you would like it to appear in acknowledgment materials)

Charge my credit card for \$_____.

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Please send me a pledge form for the Tramway Renovation Project.

I would like to join the e-mail club.

Please send me more information about the Tramway Renovation Project.

Address: _____

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