

## Message from the Department Head



*Elena Plante, PhD, Professor & Head*

As is ever the case, the winds of change continue to blow for the Department of Speech, Language, and Hearing Sciences. Over the last five years, we have seen some remarkable changes. If you have been following this newsletter, you will have noticed that we have experienced a number of retirements of familiar names. However, we have been extremely fortunate in being able to recruit

an outstanding group of new faculty. These individuals, whose stories will appear in this newsletter over time, cover the range of research that provides foundational science to the evidence-based practice the practitioners among us depend on to provide quality service. These individuals are now or are quickly becoming the “big names” in the field and their work and in several cases have been recognized by both the university and nationally organizations for excellence in contributions to teaching. In fact, I sincerely believe that we currently have as strong a faculty as this department has ever seen. This is of obvious benefit to our students. It is also an occasion to recognize the alumni support that have made these hires possible. It costs money to bring it the best talent. The funds to hire many of these individuals and to provide them with the resources they need to successfully launch these careers has been provided by a number of donor and alumni gifts. This directly benefits you, our alumni, because the current strength of our department insures the continued value of their own degrees into the future.

With the help of you, our alumni and community of supporters, we have made significant strides forward in our ability to educate the best and the brightest and to reach out to the wider community. When I became department head five years ago, the department’s ability to support students was largely at the mercy of fluctuating state budgets. We had only two scholarship sources that we could use to attract the best students to our program. Through your generosity, we have added two scholarships that can be used for this purpose: the Anthony DeFeo Scholarship for clinical students, the Audrey Holland Scholarship for doctoral students. Through your donations, each of these are now providing a small but growing amount of support for students. I also want to recognize individuals and groups who have made consistent donations over a number of years to support our students. These include Thomas and Susan Cordell, David Peachin, Cecile Moore, Jack and Melanie Davis, The Midtown Sertoma Club of Tucson, Pilot International Club. I am truly grateful to everyone who has supported the department in ways that allow us to support our students, our clients, and our community.

I wanted to use this newsletter specifically to say thank you because this will be my final column as Department Head. I plan to step down from this role and return to my role as a faculty member who is fully-engaged in student education and the research needed to advance the practice of speech-language pathology. I can honestly say that I have appreciated my time in this role and have taken great pride in the department’s accomplishments during this time. And in many ways, the best things wouldn’t have happened without your help.

## “...I like to say autism is afraid of me.”

A family of five, three young boys, two careers, and four therapy sessions a week. And we thought our days were full! Meet Frank and Elma Arellano and their three boys Frankie, JoJo, and Alex. Frankie and JoJo attend twice weekly speech-language therapy sessions at the Grunewald-Blitz Clinic for Communication Disorders in Children (GBC), therapy that addresses communication delays secondary to Autism Spectrum Disorder. Alex gets to be the “helper.” Elma’s description of their lives: Busy! “Our days are filled with a lot of language and reinforcement,” she continues. “Frank and I have learned how to work together and pick up where the other leaves off.”

Their day starts early; 5am in Elma’s case so she can get to her Respiratory Therapy job



*Alex, JoJo and Frankie*

at UMC by 6am. Frank gets the boys ready, drives them to school, and then heads to his job at UPS Freight. Elma picks them up at the end of the school day. “We both have our roles,” says Elma. “I work on homework and

flashcards and pronunciation. Frank teaches them how to play outside and be boys.” She also feels that their dad has so much patience with them because he remembers what it was like to not be able to speak. “Frank had a language delay when he was little.” Frank and Elma pay for the boy’s therapy sessions out of pocket, so the GBC was thrilled to be able to offer a partial scholarship this year. The One Glass Fund, established by the One Glass Foundation, has provided funds for families affected by autism who do not have private insurance or state support for therapy treatment.

“You know, I used to be afraid of autism,” says Elma, “but I like to say that autism is now afraid of me.”

## Advisory Board Members

Jennifer Casteix, MS  
Barbara Cone, PhD

Janis Gasch, AuD  
Sydney Rice, MD

Susan Cordell  
Tom Cordell

David A. Parry, MD  
Cheryl Leeper, MS

David Peachin, CPA  
Elena Plante, PhD

Sheri Moormann, MS  
Joy Newman

# How is Research Improving Clinical Practice?

## Which Toys are best for Eliciting a Sound Sample in Bilingual Spanish-English Speaking Children?



Leah Fabiano-Smith, PhD, CCC-SLP

Most studies examining sound production in preschool children use play samples. To collect these samples, a number of different toys are used. Descriptions of the toys in some studies are specific, and may include dolls, trucks, small animal figures, and blocks, while other studies report nonspecific items such as pictures, toys, and games. This makes it difficult to compare across studies to determine which toys might be best for eliciting the type and frequency of sounds in English. In addition, no studies have performed this type of item analysis for languages other than English.

The purpose of the current study was to examine a set of toys commonly used by speech-language pathologists during assessment and therapy sessions. This study aimed to answer the following research questions: (1) Which toy or toys elicits the most sounds in the most phonetic contexts for English? (2) Which toy or toys elicits the most sounds in the most phonetic contexts for Spanish? and (3) Are we as researchers and clinicians able to use the same toys for elicitation of phonetic inventories in both languages, or will different toys have to be used in different language contexts to target all sounds?

The following toys were included in the item analysis: Fisher-Price® Little People Animal Sounds Farm; Fisher-Price® Little People Learn About Town; Fisher-Price® Little People Happy Sounds Home, and the Just like Home® Play Food set. English-speaking and Bilingual Spanish-English speaking undergraduate students developed word lists to reflect all the possible sounds that could be elicited through play with each item. Those words were phonetically transcribed and the number of opportunities for each speech sound, for both English and Spanish, were organized by frequency of occurrence and word position. The Fisher-Price® Little People Happy Sounds Home elicited the most words and sounds for both English and Spanish. This one toy can be used in both language contexts to evenly elicit sounds across all manner classes at a high frequency. Both researchers and speech-language pathologists should choose a specific toy that is known to elicit sounds evenly across manner classes and word positions in place of a set of toys

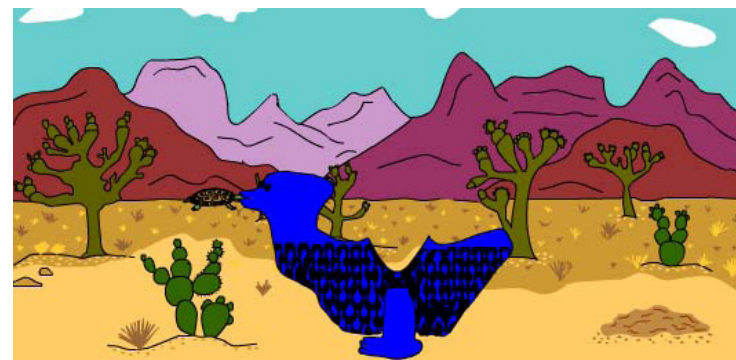
whose ability to elicit sounds evenly is unknown. In addition, for the assessment of Spanish-speaking children, it is important to be sure that the toys being used during play elicit the sound inventory of Spanish, which differs significantly from English. For all children, it is important to provide enough opportunities during play to produce each sound so as to prevent overdiagnosis of speech disorders. •

Leah Fabiano-Smith, PhD, CCC-SLP

## Do bilingual children learn new English words in the same way as monolingual children?

A strong vocabulary is important for successful communication and academic success. Research in the L4 Lab (l4.arizona.edu) is beginning to translate findings from laboratory-based word learning research to new techniques for effectively teaching vocabulary. Currently underway are a series of studies looking at both monolingual English-speaking children and bilingual Spanish-English speaking children to determine if these two groups of children could benefit from the same types of vocabulary teaching strategies.

Two factors are known to influence word learning in monolingual English-speaking children: word length and sound probability. For these children, longer words are more difficult to learn as are words with lower sound probability. Sound probability refers to the statistical probability of the order of particular speech sounds within syllables and words. For example, a word like “cat” has higher probability sound patterns than a word like “youth” which has a lower probability. The Spanish language has more multi-syllabic words than English, which



Animated dinosaur used in interactive computer game to test word learning

might give bilingual children an advantage related to word length. It is unknown how English sound probability might affect word learning for these kids. Might one language influence the other?

To test word learning, a novel interactive computer game was created where children had to learn the names of 24 different dinosaurs and later demonstrate recognition of the dinosaur’s name or be able to say the name spontaneously when asked. Two groups of children were tested, preschool age and school age. Results show differences between the monolingual and bilingual children on word learning, depending upon their age. There was no difference for word length; longer words were harder for all children. When asked to recognize the new words, the bilingual preschool children did not benefit from the statistical properties of English sound patterns in the same way as the monolingual preschool children did. When asked to say the new words, they, like the monolingual children, did better with the more frequent sound patterns. For example “prin” was an easier word to learn than “drud.” However, the bilingual preschool children were less accurate overall. The act of learning new words with English language patterns proved to be taxing for the bilingual preschoolers. In contrast, there were no differences between how the monolingual and bilingual school-aged children performed on either of the tasks.

These results suggest that teaching strategies for monolingual school-age children will likely also benefit school-age bilingual children. The same is true for preschool bilingual learners, if the goal is for them to say words correctly. However, we might expect bilingual preschoolers to take a bit longer to have the same accuracy as monolingual children. Finally, if a school-age bilingual child shows unusual word learning patterns, this may be an indication of a language disorder, rather than a language difference. •

Mary Alt, PhD, CCC-SLP

## Is it okay to talk through your nose?

This may seem like an odd question with an obvious answer, but it’s not as simple as you might think. Is it okay to talk through your nose? Well, sometimes it is and sometimes it isn’t. If you’re old enough to read this newsletter, you probably talk through your nose when you say the sounds “m,” “n,” and “ng,” but otherwise you talk through your mouth. To talk through your nose, a valve at the back of the mouth (called the velopharynx) opens to allow the sound (and air) to go through the nasal pathway. To talk through the mouth, that valve must close. Thus, as adults, we learn to keep that valve closed most of the time when we speak. But it’s different for very young babies. To begin, they only make



Photo credit: Kelly Presnell/Arizona Daily Star.

a few speech sounds and when they do, they often say them through the nose. As babies mature, more and more of their speech sounds come out the mouth, and fewer and fewer come through the nose. Although we know this generally to be true, we do not know exactly when this happens in a baby’s development. Does it happen before 6 months? Or does it happen closer to the first birthday?

To answer this question, we had to figure out a clever way to determine if the valve at the back of the mouth is open or closed. It had to be clever because babies won’t tolerate much interference or discomfort, especially around the face, making it impossible to use most of the available measurement devices. The solution came in the form of a small tube that fits in the nose (called a nasal cannula) and is often used to deliver oxygen to sick babies. In our case, we attach the other end of this tube to a device that measures air pressure change. From the change in air pressure, we can tell if the valve at the back of the mouth is open or closed. We also tape a small microphone to the baby’s forehead, and voila! we can figure out what the valve is doing while the baby makes sounds. In this way, we will answer our question within the next few years, thanks to the support of a grant from the National Institutes of Health.

This research will tell us a great deal about how healthy babies develop speech, but it will also help us know what to do for babies who are at risk for developing speech disorders. When we know the age at which to expect the valve to be closed for speech sounds, we will be able to identify babies who are not developing normally (for example, babies born prematurely or babies who have undergone birth trauma). If we can identify them early, we can provide them with early treatment and better quality of life. •

Jeannette D. Hoit, PhD, CCC-SLP  
Kate Bunton, PhD, CCC-SLP  
Mary Alt, PhD, CCC-SLP

## Students Benefitting from Scholarships

*Congratulations to all of this year's outstanding scholarship recipients. And thank you to all the individuals and groups who make these scholarships possible.*

### Susan and Thomas Cordell Scholarship

Susan and Tom Cordell continue to support UA SLHS graduate students who are interested in providing counseling and (re)habilitative services to individuals with hearing loss.

**Jessie Liu \$3,000**

**Amy Marin \$3,000**

**Analydia Gonzales \$3,000**

### Midtown Sertoma Scholarship

**Analydia Gonzales \$1,200**

### Cassandra Davis Memorial Scholarship

The Cassandra Davis Memorial Scholarship was established in loving memory of Cassandra Davis, BS '02 who died in a fatal car accident in July of 2002. Cassandra graduated summa cum laude from the University of Arizona with a BS and BA in Spanish with an emphasis in linguistics. She was also a member of the Phi Beta Kappa. Her special interest area was bilingual communication disorders.

**Jenna Beltrami \$2,500 and**

**Taylor Howard \$2,500 and**

**Cassandra's Connection was**

**Jenna Shaar \$1,000.**

### George V., Homer E., and David R. Woodling/Midtown Sertoma Club of Tucson Memorial Scholarship

Reese and Nancy Woodling created this scholarship in memory of Reese's father, uncle and son who all suffered hearing loss.

**Cathy Carbonell \$1,000**

### Scottish Rite Scholarships

**Christine Butalla**

### Rebecca Rutz Graduate Assistantship

**Christine Bartelt**

### College of Science Galileo Scholarship

**Robin Samlan – Patron, Cécile**

**Moore and Megan Kittleson – Patron, David and Mary Peachin**

### NIDCD Dissertation Grant F31

**Antonia "Davi" Vitela**

"General Auditory Model of Adaptive Perception of Speech". Dr. Andrew Lotto is her advisor.

### Robin Samlan

"Kinematic Modeling of Asymmetric Vocal Fold Vibration". Dr. Brad Story is her advisor.



Jenna Beltrami



Christine Bartelt



Christina Butalla



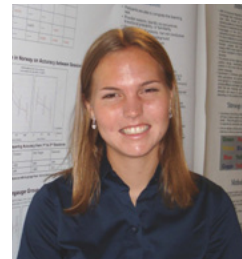
Kathy Carbonell



Analydia Gonzales



Taylor Howard



Megan Kittleson



Jessie Liu



Amy Marin



Robin Samlan



Jenna Schaa



Davi Vitela

## Fundraiser takes a trip to Italy

Our 2<sup>nd</sup> Annual Wine Tasting Fundraiser took us on a lovely tour of Italian wines. Hosted by the Bracamonte family in their beautiful foothills home, the approximately \$2,000 raised will continue to support graduate students as they travel to present their research.

### 2010 Travel Scholarship Awardees

Kathy Carbonell

Natalie S. Dailey

Serena K. Singh

Robin Samlan

Davi Vitela

## Graduates 2010

### SPRING 2010 GRADUATES

#### DOCTOR OF PHILOSOPHY

Hye Suk Cho  
Dissertation Title: Exploring a Common Neural Substrate of Reading and Spelling

#### DOCTOR OF AUDIOLOGY

Katherine Brown  
Daniel Duran  
Emily Foreman  
Rindy Ito  
Ryan Whitaker (Jean R. Guloién Outstanding Graduate Student)

#### MASTER OF SCIENCE

Karen Arnold Ewing  
Miranda Babiak (Jean R. Guloién Outstanding Graduate Student)  
Nicole Cadenasso  
Rebecca Dent  
Melanie Humphrey-Moreno  
Megan Kittleson  
Yi-Hui Lee  
Jennifer Lewis  
Annie Liu  
HoWanUt Old Peter  
Stephen Thomas  
Amanda Van Vianen (Arizona Speech-Language-Hearing Association Outstanding Student)  
Kati Wint

#### BACHELOR OF SCIENCE

Carrie Almeter

Kyle Almryde (UA SCIENCE Ambassador)  
Emma Amble  
Olga Ambriz  
Alexandra Ancharski  
Jeanette Angle  
Caitlyn Bailey  
Lucinda Barcelo  
Sarah Barreuther  
Juliana Bass  
Kara Bernstein  
Amber Brumfield  
Chelsea Buser  
Angela Carlon  
Jonathan Carlon  
Lindsey Collins  
Michelle Collins  
Alexandra Conklin  
Bre Ann Currie  
Dasi Danzig  
Monica Dawydowych  
Alexandria Delgado  
Katherine Dempsey  
Mika Deslongchamps  
Danielle Dorain  
Erin Edwards  
Amanda Ellerson  
Syleena Firkins  
Michelle Fleming  
Lisa Frelke  
Paul Gaudio  
Candace Gilder  
Kelsie Grant  
Lauren Greenwood  
Rachel Grief  
Keila Gutierrez (Excellence in Undergraduate Research)  
Shannon Hagadorn  
Andrew Hawkins  
Tiffanie Hawkins  
Jennifer Henzler  
Arlenne Hugues

Andrea Jackson  
Rahn Johnson  
Laura Karp  
Tonia Kennon  
Sara Knight  
Alexia Dramer  
Hallie Leaventon  
Emily Lehn  
Emily Lesauski  
Connie Leung  
Jessica Lewis  
Anjhamonay Lincoln  
Lucia Lucero  
Jane Mallett  
Elise Maxwell  
Katelyn Meves  
Emily Mock  
Amanda Moody (Outstanding Senior)  
Jessica Motzkin  
Cathleen Murphy  
Kellie O'Hanlan  
Amanda Orson  
Jeffrey Zelz  
Ashley Pegg  
Roxanne Perry  
Katherine Plattner  
Kelsey Poche  
Stephanie Pool Isbell  
Carly Regan  
Alana Ripperda  
Mary Rouff  
Marva Russell  
Robbin Scott  
Chrintine Shultz  
John Spece  
Ashley Stitt  
Jessica Stoelting  
Lindsay Teitelbaum  
Andrew-Justin Tio  
Kelsie Underhill Gloria  
Valenzuela

Claudia Vellaescusa  
Emily Weil  
Rachel Wiener  
Natalie Xanthopoulos  
Alexander Yeakel



*Drs. Hoit and Bailey at 2010 Spring Graduation.*

#### DISTINGUISHED ALUMNUS

**E. Fiona Bailey, Ph.D. '99**

After graduating from Speech and Hearing Sciences Dr. Bailey accepted a post-doctoral fellowship to work in the Department of Physiology at The University of Arizona. In 2002, she was promoted to Research Assistant Professor after securing independent funding from the National Institutes of Health. She went on to obtain a tenure-track position in the same department. Throughout the years, her interest in the upper airway and how muscles of the upper airway are controlled in functions critical to life including breathing, swallowing and speech has not

diminished. She feels fortunate to have been permitted to pursue her research interests and to have had the opportunity to teach and come to know many hundreds of undergraduate students her at The University of Arizona. Dr. Bailey is Assistant Professor in the Dept. of Physiology at the University of Arizona. She was nominated by Dr. Jenny Hoit.

### FALL 2010 GRADUATES

#### BACHELOR OF SCIENCE DEGREE

Ashley Addison  
Mais Al-Tayyar  
Lawrence Andrade  
Emily Brevoort  
Judy Bevier  
Maggie Binder  
Laura Blanchette  
Samantha Cammons  
Teresa Carelock  
Kathleen Easterly  
Michelle Hennen  
Amanda Lopez  
Daniela Maldonado  
KC Murphy  
Valerie Nocos  
Stacey Platzman (Outstanding Senior)  
Elizabeth Quinn  
Ryan Ruiz  
Courtney Schlott  
Erin Schmitt  
Alida Swart  
Derrick Tang  
Mary Tarr  
Arlene Valentine

## NSSLHA

Silent Auction in April. On February 15<sup>th</sup> held an educational forum presented by Dr. Wilson on Primary Progressive Aphasia with members of the community and NSSLHA in attendance. NSSLHA members also enjoyed working with the Sertoma Club at the Tucson Food Bank.

beyond to help NSSLHA grow. We have a record number of members this year! Our wonderful advisors, Dr. Tom Muller and Dr. Gayle Dede, have been influential in helping our chapter run smoothly. We look forward to thanking them and the rest of the staff during teacher appreciation week.

Mark your calendars for the NSSLHA graduation banquet on Thursday May 12<sup>th</sup>, the morning of graduation! This is the time we say goodbye to those who are graduating, and honor all their hard work. In addition, at the banquet we will announce the members who worked towards gaining their NSSLHA key membership. I hope that everyone has a wonderful rest of the semester. It has been a true privilege to be your NSSLHA President this year.



2010-2011 NSSLHA members and officers

*By Kelsey Janet*

This has been a great year for University of Arizona NSSLHA. Our Kick off Picnic was Fiesta themed and a huge success. The salsa contest was both competitive and delicious. NSSLHA members also enjoyed the luxury of a resume building workshop in the fall. We have raised lots of money with our bake sales and hope to raise more at this year's

NSSLHA is excited to announce our first scholarship: The University of Arizona NSSLHA Merit Scholarship. Officers will select two winners who will receive \$350 each to help their educational needs. For information and details on the scholarship please refer to the SLHS website.

I am pleased to say that we have had wonderful officers who have gone above and

## 2010 Audiology Workshop

Tinnitus: Causes, Evaluation & Treatment was the topic of the December 3, 2010 Audiology workshop at the University of Arizona, Department of Speech, Language, and Hearing Sciences. The purpose of the day-long event was to provide clinicians with an overview of the current literature regarding tinnitus and its management. An emphasis was placed on assessment and treatment

strategies and their evidence base. We hope that clinicians left with the tools necessary to incorporate tinnitus management into their practices. The keynote speaker, Richard S. Tyler, B.Sc., M.Sc., Ph.D. is a Professor in both the Department of Otolaryngology – Head & Neck Surgery and in the Department of Communication Sciences and Disorders at the University of Iowa.

An Overview of Tucson's Tinnitus Efforts was conducted by panel members Fadyeh xUniversity of Arizona, Speech, Language,

& Hearing Sciences; Steve Huart, Au.D., Audiology Chief, Southern Arizona VA Healthcare System; and David Velenovsky, Ph.D., Senior Lecturer, University of Arizona, Speech, Language, and Hearing Sciences.

Attendees also had an opportunity to see devices on the market and soon to be on the market to treat tinnitus from our sponsors Premier Hearing Center and Hearing Instrument Consultants, Inc. representing Widex.

## 2010 GBC Workshop Speech Sound Disorders in Children: Cleft Palate & Childhood Apraxia of Speech

The focus of the Grunewald Blitz workshop, held in September, was two different speech sound disorders that are typical of pediatric case loads, those related to cleft lip and palate and childhood apraxia of speech. The objectives of the morning session presented by Kate Bunton, PhD, CCC-SLP and Robin Samlan, MS, CCC-SLP were for clinicians to be able to plan and implement an evaluation to assess resonance disorders, velopharyngeal dysfunction and obligatory/compensatory speech production behaviors and to plan

appropriate behavioral intervention. The afternoon session, presented by Edwin Maas, PhD, and Kimberly Farinella, PhD, CCC-SLP, focused on assessment tools for differential diagnosis of childhood apraxia of speech and intervention strategies. In both sessions, case examples were used to emphasize which children will benefit from these special procedures and why more typical articulation/phonological approaches may not be appropriate for these populations. Save the date September 16, 2011 GBC Workshop

## 2011 Auditory Cognitive Neuroscience Society Conference

Dr. Andrew Lotto's Lab hosted the 5th annual Auditory Cognitive Neuroscience Society (ACNS) conference on January 6th-7th, 2011. The meeting took place in the Speech, Language & Hearing Sciences building on the UA campus.

Invited speakers included Tom Bever, Chris Braun, Chris Brown, Suzanne Curtin, Huanping Dai, Michael Dorman, Leah Fabiano-Smith, Alex Francis, Kalim Gonzales, Julie Liss, Philip Loizou, Andrew Lotto, Bob Lutfi, Bob McMurray, Brad Story, Natasha Warner, Stephen Wilson, and Bill Yost.

A variety of topics were discussed this year including the history of artificial speech, segmentation strategies, the premotor cortex, electric-acoustic hearing, intelligibility remediation, the distinction between cognition and neuroscience, accent change in bilinguals, statistical learning, the perception of reduced speech, sound source identification and localization, the evolution of hearing in fish, variability in speech perception, as well as individual differences in auditory perception.

A big thanks to everyone who helped make ACNS 2011 a success! Mark your calendars for next year's conference, which is scheduled for January 4-6th, 2012.

Sarah C. Sullivan, MA • Research Specialist & Lab Manager  
Auditory Cognitive Neuroscience Experience Lab  
University of Arizona • 520-621-9841



Jenny Hoyt, Tony DeFeo and Megan Hodge

## Principal Care for Children with Motor Speech Disorders: Theory to Practice to Evidence

Dr. Megan Hodge's lecture focused on children with severe speech delay and suspected speech motor learning disabilities and their challenge to assess, diagnose and treat. Her presentation described the framework to

guide services for young children with speech motor learning challenges and their parents. The frame work is derived from theories and models of speech production, speech development and intervention and consensus about best practice. The outcomes of a sample 12-week treatment program based on the framework was presented for 10 children with severe speech delay and suspected childhood apraxia of speech.

Megan Hodge is a registered speech language pathologist and professor in The Department of Speech Pathology and Audiology at The University of Alberta. She teaches in the areas of anatomy and physiology of the speech mechanism, speech science and motor speech disorders. Her research interests

include developmental aspects of normal and disordered speech perception and production, perceptual-acoustic correlates of speech intelligibility, and linking theory with practice in evaluating and managing children with neurogenic communication disorders. Dr. Hodge was the 2006 Distinguished Alumnus of the Department of Speech, Language, and Hearing Sciences at The University of Arizona.

This annual series is made possible through the generosity of Dr. Jeannette D. Hoyt and the late Dr. Thomas J. Hixon honoring Dr. Anthony B. DeFeo's dedication to students, support of evidence-based treatment for clients, and strong advocacy for the blending of basic science with clinical science and are.

## Fourth Annual Anthony B. DeFeo Lecture in Speech-Language Pathology

## Audiologic Rehabilitation Program for Adults: A Year in Review

Big things have been happening over the last year with the Audiologic Rehabilitation Program for Adults – funded by Unisource and James S. and Dyan Pignatelli. A few of the more notable highlights:

- Over 300 persons with hearing loss and their communication partners have participated in our large and small group programs. The ratings of these group sessions is uniformly, "excellent."
- Of course, these programs serve the dual role of student training, and 28 students – Doctor of Audiology and undergraduates – facilitated the groups.
- We sponsored or co-sponsored with the Adult Loss of Hearing Association (ALPHA) five community lectures or workshops on campus and in Green Valley, drawing over 250 people from the two locations.
- The Arizona Community Foundation funded the Communication, Hearing, And Social Enhancement (C.H.A.S.E.) program for young adults, and those who became a part of the program have now formed their own organization Hear@Tucson
- Our website is complete and updated regularly: [lwhl.arizona.edu](http://lwhl.arizona.edu)
- We have initiated a collaboration with the Southern Arizona Veterans Health Care Center to develop an AR program for vets. A tinnitus program has also been started by Fadyeh Barakat (The 2010-2011 AuD extern) and David Velenovsky, PhD, Senior Lecturer in Audiology.
- We have had three articles on the program or on the impact of hearing loss in older adults in local publications.
- We have had two professional workshops this year – one on audiologic rehabilitation and the other on tinnitus, both organized by Tom Muller, AuD

It's not possible to appreciate fully the impact that this program has had on southern Arizona, and we continue to be grateful to Jim and Dyan Pignatelli for their contributions and support. As one of the participants in a Living with Hearing Loss group wrote about his experience, "It has helped me and my family a great deal, to know that many other people face challenges that occur because of hearing loss. The strategies we practiced each week have become a part of our daily routine. I felt empowered, learning about the many devices available to help, such as loops, TV ears, and assistive devices at movie theaters. I have become much more confident about wearing hearing aids and that I have a right to hear what is going on."

by Fran Harris, PhD, CCC-A

## Preschool Language Camp

By Becky Vance, MS, CCC-SLP

If you walked through the Grunewald Blitz Clinic last summer between July 6<sup>th</sup> and August 13<sup>th</sup>, you may have been transported to an undersea world where scuba divers were exploring the wonders of the ocean, from whales and dolphins to seaweed to sunken treasure. These scuba divers, 14 in all, attended the Speech, Language and Hearing Department's Preschool Language Camp. This 6-week program, which was free to qualified children, offered daily speech-language therapy and hands-on classroom activities to 4- and 5-year-olds with delayed language development. Learning opportunities extended to the department's undergraduate and graduate students who worked directly with the children under the supervision of clinically certified faculty and staff. The impetus for this program was a research grant awarded to Dr. Elena Plante focused on answering the question, "How can we best help these children learn the grammatical aspects of language?" The Preschool Language Camp effectively combined research and clinical service to benefit young children with delayed language development.

When Congress passed the American Recovery and Reinvestment Act (ARRA) in 2009, investigators with research projects funded through the NIH were invited to submit grant proposals that would extend their current programs of research. Dr. Plante submitted a proposal that translated findings from her research on receptive language processing to the treatment of grammatical deficits in young children with specific language impairment (SLI). Over the past 10 years, Dr. Plante has studied factors that facilitate rapid learning of grammatical rules in children and adults with developmental language disorder. For example, several



SLHS undergraduate works with young "camper."

studies have shown that individuals learn grammatical rules more readily when they listen to input presented by several different talkers (up to 10) as compared to one talker. Similarly, presentation of large numbers of independent examples of a target structure promotes better learning than repeated presentation of a small set of examples. Dr. Plante drew upon these findings to design four treatment studies that will flesh out the factors resulting in the best learning over the shortest period of time. Findings from these studies have immediate implications for practicing clinicians.

The summer camp model is an efficient way to conduct intervention research because many children can be treated in a relatively short period of time. In addition, a 4-hour camp allows working parents to drop off their child before work and transport their child to another location during the lunch hour. Therapy sessions included play activities during which the target structure was trained along with daily learning probes. When children were not in therapy, they participated in classroom activities designed to enhance vocabulary, pre-reading, and social skills. A healthy snack and outside play time rounded out the day. The Preschool Language Camp will be offered again in 2011. This summer children might be transported back to the old west as part of the program. Yahoo!

“People who give will never be poor.”

~Anne Frank, *The Diary of Anne Frank*

## Friends of SLHS

We wish to thank the following individuals, corporations, and foundations for their generous support. Every gift is valued. It is important to us to recognize all donors correctly. Please notify us of any discrepancies.

Mary Alt	Barbara Greco	Steven Rapsak
Kathryn Anderson	Stephanie Hammond	Marjorie Rees
M Anonymous (individual)	Gail Harris	Cox Regina
Marla Atteberry	Janet Hawley	Audrey Holland
Holland Audrey	Joel Heerboth	Kindle Rising
Katherine Bass	Julie Hendrick	Harry Rollings
Carole Beal	Billie High eagle & Family	Lisa Rosenfeld
Pelagie Beeson	Jeannette Hoit	Carrie Ruggiero
Susan Bernas	Indiana Trust & Investment	Don & Nan Rollings
Robert Boies	in Memory of Esther	Burton Schneider
Betsy Bolding	Chapman	Sharon Delajoux
Daniel Boone	Nina Isaac	Ralph Shelton
Mr. & Mrs. M Bracamonte	Jack & Susanne Lasseter	Linda Shenk
R.L. Brinkerhoff	Janet Hawley	Richard Slaughter
Shannon Bryant	Debra Johnson	Patti Sorkow
Kate Bunton	Sara Jones	Karen Souder
Christine Butalla	Julie Hendrick	Sue Bernas
Maria Cadaxa	Barbara Kieffer	Susan E. McGinley
Frida Cannon	Barbara Kiernan	Cheryl Tomoeda
Jennifer Casteix	Kieve Foundation	Maddie Tsurusaki
Catherine C. Martinez	Ellen Knight	Nancy Turman
Monica Cetuk	Susanne Lasseter	Lois Van Valkenburg
Thomas Christensen	Lia Lavallee	Rebecca Vance
Carolyn Cone	Carol Ledbetter	Laura Veazey
Thomas Cordell	Cheryl & Bub Leeper	Susan Vicksman
Regina Cox	Kang Li	Joseph Violette
Pamela Crooke	William Ligety	Colman Watkins
Huanping Dai	Taniguchi Lori	Lucy Weeks
Lynn Dalcolma	Sheila Maguire-Bradley	Pedro & Debra Weisleder
David Peachin	Bernard Marchuska	Wendy Weiss
Jack & Melanie Davis	Catherine Martinez	Christine Wiggs
Abbey J.Grunewald	Noel Matkin	Kay Wiley
Foundation	Susan McGinley	Nancy Williams
Gayle Dede	Kathe McGrath	Mary Sayre Barrett
David DeFeo	Margaret McMahon	Federico Castellan Sayre
Elizabeth DeFeo	Amy Meredith	The Honorable & Mrs.
Judy DeFeo	Andrew Merrell	Thomas A. Cannon, Jr.
Sharon Delajoux	Midtown Sertoma Club	Amy Heck
P.V. Demars	Cécile Moore	Alice Schnepf
Riah Ellis	Melanie Moore	Danielle Lowe
Michelle Emery	Hughlett Morris	Nina Isaac
Brenda Evans	Laura Mosier	Sherril Moorman
Paul & Carolyn Farinella	Terri Mulson	Elizabeth Rollings
Cassandra Faux	Lou Ann Newman	
Emily Fitzpatrick	Joy Newman	
Cornelia Foster	Hilary Nitka	
Julie Frey	Rachel O'Connell	
Lisa Funk	Anne Parker	
Amy Gabel	Patricia Stanley	
One Glass Fund	Gayle Perona	
Kathryn George	James & Dyan Pignatelli	
LouAnn Gerken	Pilot International	
Miriam Girard	Marilyn Pipes	
Lauri Glasshoff	Elena Plante	
Meg Glasston	Pamela Polito	
Theodore Glattke	Mrs. Ruthann Pozez	
Sarah Glenn	Kathy Puckett	
Kentton & Amy Grant	Linda Randall	

### In Memory of Ray Mariani

Thomas & Nancy Feit  
Patrick Dougherty  
Marilyn & John Haney  
Brian D. Dedinsky  
Mike & Tina Purcella  
Nancy Kitchell  
Cathy Stark  
Jerry & Shelley Caniglia  
Nell Caniglia  
Tom & Noel Caniglia  
Margaret Caniglia  
Ms. Willie Daly

## Grants & Other Faculty Achievements

### Faculty Grants

#### Mary Alt

“Using technology to assess numeracy deficits in children with language challenges. UA ADVANCE grant, funded by the National Science Foundation

#### Pelagie M. Beeson

“Developing an Evidence-Based Treatment Continuum for Spoken and Written Language” NIH/NIDCD

#### Barbara Cone

“Innovations in the Electrophysiologic Assessment of Hearing in Infants” Association of University Centers on Disabilities (AUCD)

#### Jeannette Hoit

**Kate Bunton**  
**Mary Alt**  
“Velopharyngeal Function for Oral Sound Production in Healthy Children” NIH/NIDCD

#### Andrew Lotto

In collaboration with Dr. Holt of Carnegie Mellon University received a renewal of their RO1 entitled: “Formation and Tuning of Complex Auditory Categories” NIH/NIDCD.

#### Elena Plante

“Imaging Learning in Developmental Language Disorder” NIH/NIDCD

“Test of Integrated Language and Literacy Skills (TILLS) Validation Research 2” Institute of Education Sciences (IES)

### Faculty Achievements

#### Mary Alt

Five-Star Faculty Award Finalist “The Five Star Faculty Award has honored excellence in undergraduate teaching at the University of Arizona since 1983. It is also the only teaching award at the University selected exclusively by students.”

#### Andrew Lotto

Co-author on the article, “Quantifying Speech Rhythm Deficits in the Dysarthrias,” which was selected for the 2009 Editor’s Award for the Speech section of the Journal of Speech, Language, and Hearing Research. The award was presented at the Awards Ceremony at the 2010 ASHA Convention.

## It Takes Two to Talk®

It Takes Two to Talk® the Hanen Program® for parents was offered this spring semester, providing specialized training in language facilitation for five sets of parents. Kathe McGrath and Gretchen Davis (Speech in Bloom) along with SLHS graduate students, engaged in group training sessions and individual consultations using videotaping and feedback to help parents learn how to create and take advantage of everyday opportunities to promote their child’s communication and language development.

## Department Update



Steven Wilson, PhD.



Leah Fabiano-Smith, PhD



Nicole Marrone, PhD



Patricia Aparicio



Shaunna Heinecke

**Steven Wilson, PhD., Assistant Professor**, was born and raised in Australia and he started his career as a language researcher carrying out linguistic fieldwork with the last few speakers of an Australian Aboriginal language called Wagiman. After receiving his B.A. from the University of Sydney, he came to the United States for graduate school, eventually receiving an M.A. in Linguistics and a Ph.D. in Neuroscience from the University of California, Los Angeles. This was followed by a stint as a postdoctoral researcher at the University of California, San Francisco, where he worked on primary progressive aphasia. Stephen is now joining a growing group of researchers interested in language and the brain at the University of Arizona. In his research, he uses structural and functional neuroimaging to investigate the neural basis of normal and disordered language processing.

**Leah Fabiano-Smith, PhD, CCC-SLP, Assistant Professor**, earned her PhD in Communication Sciences from Temple University in 2006, and completed a post-doctoral fellowship in theoretical phonology at the Center for Research in Language at UCSD/SDSU in 2008. Her research focuses on phonological acquisition and disorders in bilingual Spanish-English speaking children and clinical issues related to culturally and linguistically diverse populations. She came to the University of Arizona in 2010.

**Nicole Marrone, PhD, CCC-A, Assistant Professor**, received her Ph.D. in Audiology from Boston University in 2007 and then completed a postdoctoral fellowship in perceptual learning at Northwestern University. She will direct a laboratory devoted to improving communication outcomes for adults who use hearing aids. Her research examines the interaction between hearing loss, aging, and higher-order cognitive processes like selective attention, memory, and learning. A Minnesota native, Nicole felt right at home with the colder-than-normal temperatures when she started this January. She has been enjoying the great outdoors in Tucson, going on weekend hikes with her husband, Dan, an astronomy professor at the UA, and their son, Peter, age 3.

**Patricia Aparicio** started with SLHS in June of 2010 as Administrative Secretary working in the clinic. Patricia came to the UA after

3 years with Big Brothers Big Sisters. She has two children and both attend the UA. Patricia enjoys Flamenco dancing and Yoga.

**Shaunna Heinecke** joined the SLHS clinic in September 2010 as Administrative Secretary. Shaunna is originally from Minneapolis and came to Tucson with her husband, a Psychologist at the VA Hospital. Both she and her husband are thrilled to be living in a climate with temperatures above 0 degrees. Shaunna enjoys distance running and Spinning.

We said farewell to **Gayle Perona** in August of 2010. She retired from SLHS after 6 years.

## Pediatric Test of Brain Injury



PTBI

The first ever test designed specifically for children with head injuries was released this year. The test is designed to track the progress of children ages 6 to 16 who have experienced head injury or other brain lesions. Prior to the publication of this test, clinicians

often had to rely on tests developed for adult populations, or child-oriented tests that lacked a focus on the types of deficits caused by traumatic brain injury. The test developers included Gillian Hotz, PhD Co-Director of the Pediatric Brain & Spinal Cord Injury Program at the University of Miami School of Medicine, Nancy Helm-Estabrooks, ScD, of Western Carolina University (and formerly affiliated with the UA National Center for Neurogenic Communication Disorders), Nickola Wolf Nelson, PhD of Western Michigan University, and Elena Plante, PhD. This national team reflected expertise in head injury, school-age language, and cutting edge test design techniques. Additional information is available at in Topics in Language Disorders, July/September 209, vol. 29, 207-223 and [www.brookespublishing.com/store/books/hotz-ptbi/index.htm](http://www.brookespublishing.com/store/books/hotz-ptbi/index.htm).

## Anniversary News

This year, we felt keenly the passing of Dr. Anthony DeFeo. Many of you have great memories of his 27 years as Clinic Director. Send us your memories to [slhs@email.arizona.edu](mailto:slhs@email.arizona.edu). We will be compiling these memories and any others you care to share with everyone through the web as part of our upcoming Anniversary Year celebrations. If you haven’t already done so, check out the history of our department put together by Marcia Campbell, Klonda Lynn, and Alethea Smith Mattingly at [slhs.arizona.edu/wp-content/uploads/2010/02/history.pdf](http://slhs.arizona.edu/wp-content/uploads/2010/02/history.pdf). If you have information to bring this history forward in time, please send us what you remember about your years here.



Anthony B. DeFeo, PhD, CCC-SLP

Dr. DeFeo received his MA and PhD at Northwestern University. He joined the Department of Speech, Language and Hearing Sciences at the University of Arizona in 12981 as Clinic Director. He was also a faculty member of the Interstellar Training Program in the Department of Special Education.

He was viewed as a master clinician and a master teacher and in 1991, he was given a Distinguished Teaching Award from the University of Arizona College of Science. For more than a quarter of a century, Dr. DeFeo's clinical and research activities centered on identification, evaluation and treatment of pediatric communication disorders especially

## In Memory

Dr. Anthony B. DeFeo died on September 22, 2010. Dr. DeFeo developed an extraordinary career that exemplified the translation of science into service. He was widely regarded as an outstanding scholar, clinician, and teacher. His passion for clinical education and his encyclopedic knowledge of the professional literature were admirable.

those related to syndromic and other atypical clinical presentations. He was also involved in developing several evidence-based treatment programs for all ages in the department's several clinics.

Those lucky enough to have had him in class or worked with him will remember his dynamic style. For his contributions and accomplishments, he was awarded Honors of the Arizona Speech-Language-Hearing Association (2003).

In January of 2010 Dr. DeFeo was honored at a retirement dinner celebrating his 27 years of service with the UA. As a gift to him, and to future generations of students, his friends and family gather together to establish the **Anthony B. DeFeo Endowed Scholarship for Clinical Studies in Speech-Language Pathology**. This scholarship will serve as a permanent memorial to him and to his passion for his work and his love of his students.

On December 4, 2010, friends and family gathered to dedicate the GBC Playground to the memory of Anthony B. DeFeo. A bronze plaque donated by the Rollings family is a permanent marker.



Keila Gutierrez

## My Research Experiences in a Land Down Under.

In the summer of 2010, I had the opportunity to conduct research at the University of Sydney in Sydney, New South Wales, Australia under the mentorship of communication disorders specialist, Dr. Kirrie Ballard. Although I had been involved in a variety of research at the University of Arizona, as part of the Biomedical Research Abroad: Vistas Open! (**BRAVO!**) Program, it was the first time that I had to design and research project and carry it out thousands of miles away for 13 weeks!

The purpose of my **BRAVO!** Project was to gain insight into the nature of acquired communication pathologies that occur following a neurological injury, such as a stroke. Specifically, the two pathologies that I investigated were Apraxia of Speech (AOS), a motor-speech disorder, and Aphasia, a language disorder. The diagnosis of these communication disorders is based on behavioral characteristics, but as of now, the pathological origin of these disorders remains unclear. As a first step, my University of Arizona mentor, Dr. Edwin Maas, and I designed an experiment that taps into intermittent language processing levels that occur before speech production by having participants say sets of words and measuring their reaction times (RT). Depending on the set of words, typical adults have shown a shorter or longer RT. This task had not been applied to adults with communication disorders, and we were curious to see how they would perform. In total, I administered my research tasks to 2 individuals with AOS and 1 individual with Aphasia and a group of 22 control speakers. This testing has helped us gain preliminary insight as to the underlying nature of the communication pathologies. Results were as expected for the individual with Aphasia; however, for AOS results were unexpected. Needless to say, further investigations are needed to gain further insight into how individuals with these communication disorders process language.

My experiences with **BRAVO!** will not be forgotten. I would like to thank the UBRP's NIH/NHIRT grant (MD001427) for financial support.



## Tools for Teaching in the Clinic

Assistive technology (AT) refers to devices or equipment for people with disabilities.

In the GBC, graduate clinicians help children who cannot speak learn to use assistive technology for communication using single or multiple message voice-output devices like these.

Devices like these provide invaluable learning and a voice for non-verbal children. Your gift of \$300 allows us to purchase two.



## Young stroke victim benefits from support of a generous donor

Mr. Martinez was just 30 years old when his wife found him lying on the kitchen floor. He was rushed to the hospital where they diagnosed a massive stroke causing damage to the left side of his brain. After receiving care in the ICU and in-patient rehabilitation unit at the hospital, he was sent home still struggling with his balance and with the ability to use his right hand. But, it was the severe challenges with producing speech and language that interfered with his daily activities the most. Given his speech limitations, Mr. Martinez was unable to return to work. He had

no medical insurance, leaving him and his wife with great concerns about his ability to support his family of 4 children under 12 years of age.

The physician at his hospital referred Mr. Martinez to the University of Arizona because of her knowledge of the ongoing research in the area of aphasia and the specialty treatment programs in the Clinic for Adult Communication Disorders. Fortunately, he was able to start therapy immediately due to the support of a generous donor, who himself had suffered a stroke and

dealt with the inherent frustrations of a communication disorder. This donor pledged to support speech-language treatment for "a highly motivated individual with aphasia." Mr. Martinez fit the bill perfectly! He has shown tremendous progress in treatment, and continues to attend therapy twice weekly as well as participate in an aphasia group, where he can practice his communication skills and receive psychosocial support.

The Clinic for Adult Communication Disorders treats a wide variety of communication

disorders due to progressive neurological diseases, speech-language deficits following a stroke, and cognitive-memory problems resulting from traumatic brain injury. All too often, the adults facing these medical issues are not able to return to work or are forced to retire early due to their communication difficulties. Along with the loss of work many lose their medical insurance and thus the ability to pay for much needed therapy. In these situations, the ability to offer a scholarship to off-set the cost of treatment is critical.

By Janet Hawley, MS, CCC-SLP



Melissa (Fitzpatrick) Haylock with her family after she completed 102 miles in the Tour de Palm Springs bike ride to benefit the Leukemia and Lymphomas Society. Melissa included Dr. DeFeo's name on her jersey among those she was riding in memory of. You can read more about Melissa's ride on her fundraising page at [pages.teamtraining.org/los/tdps11/mhaylock](http://pages.teamtraining.org/los/tdps11/mhaylock).



Jenny Hoit with MS '2 alumni visitors to Homecoming 2010



Paul and Carolyn Farinella on a recent visit to the GBC clinics. Four children, whose families have limited income and no other means of funding speech-language services, are currently benefiting from the Farinella Scholarships for Children in southern Arizona.

## Alumni News & Visitors to the Department



Sr. Lindsey Rothe with parents, Jennie and Tom at Family Weekend 2010



Susan and Tom Cordell met up with two of the recipients of the Cordell Scholarship at the Homecoming 2010 Donor and Scholar Reception.



Researchers and visitors to the Bilingual Phonology Language Lab (l-r) Trianna Oglivie, Dania Apodaca, Akinjide Famoyegun, Amanda Lopez, Dr. John Szivek from Physiology and Linguistics with his daughter, Niki, Dr. Fabiano-Smith and Sharon Crouse-Matlock at Homecoming 2010



Speech, Language, & Hearing Sciences

The University of Arizona  
Department of Speech, Language, & Hearing Sciences  
PO Box 210071  
Tucson AZ 85721-0071

**Address Service Requested**

Non-Profit Org  
US Postage Paid  
Tucson AZ  
Permit No. 190

All contents © 2010 Arizona Board of Regents.  
All rights reserved.  
The University of Arizona is an EEO / AA-M / W / D / V Employer.

**Yes!** *I am proud to support the Department of Speech, Language, & Hearing Sciences (SLHS) at The University of Arizona.*

**Please accept my gift of:**  \$200  \$100  \$50  \$25 \_\_\_\_\_ Other

\_\_\_\_\_ Speech Clinics \_\_\_\_\_ Adult Communication Disorders

\_\_\_\_\_ Hearing Clinics \_\_\_\_\_ Unrestricted (*please apply where need is greatest*)

Your continued support will ensure the future growth of these programs. **Contributions are tax deductible!**

Name: \_\_\_\_\_

Maiden: \_\_\_\_\_ (\_\_\_\_\_ Please update my information)

Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

Phone: \_\_\_\_\_ e-mail: \_\_\_\_\_

Year graduated (& degree): \_\_\_\_\_

Current Position: \_\_\_\_\_

\_\_\_\_\_ I do not wish to receive this newsletter. \_\_\_\_\_ I would like to receive future newsletters electronically at:

e-mail address: \_\_\_\_\_

I give my permission to have my name listed as a donor in the Speech, Language, & Hearing Sciences newsletter

\_\_\_\_\_ Yes \_\_\_\_\_ No (\_\_\_\_\_ Please Initial)

Please return to: Speech, Language, & Hearing Sciences, The University of Arizona  
P.O. Box 210071 Tucson, AZ 85721-0071

## SAVE THE DATE

**Fifth Annual Anthony B. DeFeo Lecture**  
August 26, 2011

**2011 GBC Workshop**  
September 16  
*Topic-Bilingual Issues in the Schools*

**2011 AUD Workshop**  
October 3  
*Topic-Auditory Processing*

**2011 Homecoming**  
November 3-5

**2012 ACNS Conference**  
January 4-6

**2012 Donor & Scholars Reception**

Please check our website for updates about date & time of the following events. Go to [slhs.arizona.edu](http://slhs.arizona.edu) & view our Welcome page.

*In an effort to "go green" we are hoping to add you to our email list for future newsletters.*

If you would like to receive the newsletter electronically and not in the mail please email us at [slhs@email.arizona.edu](mailto:slhs@email.arizona.edu) and we will add your name to our enewsletter. We will not share your email address with anyone else and will only use it to report SLHS news.

~Thank you

