The Audiology program admitted its first class of doctoral students (Au.D.) in the fall semester of 2002. The four year program requires a total of 112 graduate hours and currently has 20 students who are in either their first, second or third year. The first three years of the Au.D. program are spent on campus and in the Springfield area. The fourth and final year is considered the externship. The externships sites are usually located in large medical facilities such as medical teaching hospitals, Veterans Administration hospitals or otolaryngologists offices.

Throughout the program, students receive both academic and clinical training in multiple areas in audiology. Courses are diverse and encompass areas such as auditory anatomy/physiology, physical and psychoacoustic, medical audiology, pediatrics, amplification, electrophysiology, vestibular assessment and rehabilitation, cochlear implants, aural rehabilitation, central auditory processing, educational audiology, counseling, professional issues and practice management. Doctoral students then must complete a research project demonstrating adequate depth and breadth of a particular topic area in the field.

All students are involved in laboratory and clinical activities. The Au.D. students are exposed to many different laboratory settings. These settings may range from testing balance function, to electrophysiologic evoked potentials “brain mapping”, to otoacoustic emissions, to amplification. The students often are asked to help faculty with investigations depending upon their area of interest, which often facilitates research interests of their own. Clinical practice begins during the first semester of the doctoral program. Students are exposed to a plethora of clinical activities ranging from pediatric diagnostics, newborn/infant hearing screenings to evaluation/fitting/dispensing of amplification devices such as hearing aids, etc.

Each year, as the students’ knowledge base and experience grows, they are exposed to more difficult cases. During the second and third years, they participate in several off site practices in the regional area. These sites include otolaryngologists offices, local hospitals and private practice settings. By the fourth year the students are sent to an externship site for three semesters of full-time practice.

The doctorate of Audiology program classes start in the fall semester; therefore, students must apply for admission by February 1st of the year they want to start the program. Additional information about the doctorate program in Audiology is available at [http://www.smsu.edu/audiology/](http://www.smsu.edu/audiology/).

Submitted by Neil DiSarno, PhD

njd579f@smsu.edu
This has been an exciting and memorable year for faculty, staff and students with numerous SMSU Centennial events in addition to classes, accreditation site visits, grant applications, research projects and service activities. In early October, the annual CHHS Multidisciplinary Forum focused on *Diabetes: 100 Years of Progress*. Alumni and friends helped celebrate the unveiling of the CHHS Centennial Timeline, seven panels depicting the development of programs in the College, during a reception on October 22, 2004.

Spring semester brought a successful conclusion to the presidential search with the March 4, 2005, introduction of Dr. Michael Nietzel, who will assume his duties as the ninth SMSU President on July 1, 2005. State and community leaders gathered in Plaster Student Union on Founders’ Day, March 17, 2005, to witness Governor Matt Blunt signing the bill authorizing SMSU’s name change to Missouri State University, which takes effect August 28, 2005.

During April, SMSU’s first Public Affairs Conference brought talented experts from many fields to campus to discuss current issues. CHHS faculty, staff and students joined with others from across campus and from the community to share ideas during the conference. Several CHHS faculty members served as moderators for panels related to health and human services. Initial planning for next year’s Public Affairs Conference is already underway.

Dr. Helen Reid with one of the CHHS Centennial Timeline Panels

**From the Dean’s Office...**

We hope that you will join us for a reception featuring the premiere of the CHHS Centennial Video, produced by Dr. Michael Hendrix, and for the unveiling of a Centennial Mural in the Professional Building first floor lobby. The mural represents the programs currently in the College.

**Graduates – Where they are and what they are doing!**

<table>
<thead>
<tr>
<th>Name</th>
<th>Year/Program</th>
<th>Current Position/Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jason Arredondo</td>
<td>1997 Biomedical Sciences (BMS)</td>
<td>Science Teacher, Central High School, Springfield, MO.</td>
</tr>
<tr>
<td>Jodi (Stoller) Ballenger</td>
<td>1996 BMS graduate</td>
<td>Research Assistant, Kansas Cancer Institute, KU Medical Center.</td>
</tr>
<tr>
<td>Amber Beggs</td>
<td>2001 Communication Sciences &amp; Disorders (CSD) graduate</td>
<td>works for Therapy Associates and works one night a week as a research assistant.</td>
</tr>
<tr>
<td>Angie Bixler</td>
<td>2000 CSD graduate</td>
<td>a doctoral student at Florida State University.</td>
</tr>
<tr>
<td>Sean Brooks</td>
<td>2003 BMS graduate</td>
<td>Lab Analyst, State Crime Laboratory, Jefferson City, MO.</td>
</tr>
<tr>
<td>Tammy Cinkosky</td>
<td>1997 BMS graduate Lecturer</td>
<td>School of Biological Sciences, University of Missouri-Kansas City.</td>
</tr>
<tr>
<td>Amy Clift</td>
<td>2000 CSD graduate</td>
<td>a speech-language pathologist at St. John’s.</td>
</tr>
<tr>
<td>Adam Cline</td>
<td>2002 Sports Medicine &amp; Athletic Training (SMAT)</td>
<td>Athletic trainer and instructor at Truman State University.</td>
</tr>
</tbody>
</table>

**Heather Cline, DDS** – 1999 BMS graduate – Private dental practice Springfield, MO.

**John Dock** – 1996 CSD graduate – part owner of the Beltone Audiology Center.


**Mark A. Gerber, Jr.** – 1999 BMS graduate (Ph.D., St. Louis University, St. Louis, MO) – Postdoctoral Research Scholar, Department of Neurology, Washington University School of Medicine.


**Bryan T. MacDonald** – 1999 BMS graduate (Ph.D., Program in Biomedical Sciences, The University of Michigan, Ann Arbor, MI) – Research Fellow in Neurology, Harvard Medical School.

This final CHHS Centennial celebration will be held on Thursday, May 5, 2005 in the Professional Building lobby from 5 PM to 6:30 PM, with the program and mural unveiling taking place at 5:30 PM.

*Helen Reid*  
Associate Dean

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**Dr. Helen Reid with one of the CHHS Centennial Timeline Panels**

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*Continued on page 5*
Each year the College of Health and Human Services presents a multidisciplinary forum focusing on a health issue. Previous forum topics included dementia, Down syndrome, spinal cord injury, stroke, and the effects of a lightning strike. The purpose of each forum is 1) to promote the concept of interdisciplinary collaboration; and 2) to provide an opportunity for faculty, staff, students and interested community members to experience the multifaceted aspects of the health and human services professions, and how they can work together to maximize health care. It is hoped that programs like this will enable future healthcare and human service providers to serve patients and their families with greater understanding and insight, thereby maximizing patient rehabilitation and function.

In keeping with the SMSU Centennial theme, the 2004 CHHS Multidisciplinary Forum explored Diabetes: 100 Years of Progress. Upon arrival, audience members had the opportunity to enjoy refreshments while visiting exhibits provided by the following: SMSU’s Gerontology Program, Meyer Library, Department of Nursing, Physical Therapy Clinic, Department of Psychology, Recreation & Leisure Studies Program, School of Social Work, Southwest Missouri Area Health Education Center, the American Diabetes Association, Cox Diabetes Center/Support Group, Cox Senior Services, the Missouri Department of Health & Senior Services Diabetes Prevention & Control Program, St. John’s Older Adult Services, and Oxford Home Health Care.

Following a welcome and introduction by Dr. Cynthia Pemberton, CHHS Dean, faculty members from the College presented information about the disease process, its medical and cognitive consequences, and methods of maximizing health while living with diabetes. Mr. Ralph Rice, MPAS, PA-C, from the Department of Physician Assistant Studies, provided an introduction to the two types of diabetes. The signs, symptoms and medical complications associated with the disease were reviewed by Ms. Debra Savinske, MN, RN, from the Department of Nursing; Dr. Susan Robinson, PT and Mrs. Jeanne Cook, MSPT, PT, CWS, both from the Department of Physical Therapy. Dr. Chantal Levesque of the Department of Psychology covered some of the psychosocial consequences (e.g., anger, denial, anxiety of diabetes). Ms. Carmen Boyd, MS, LPC, RD/LD from the Dietetics Program, Department of Biomedical Sciences, chronicled the history of diabetes management through dietary approaches, from ancient Egypt to the present time. Dr. Rebecca Woodard, from the Department of Health, Physical Education and Recreation, emphasized the beneficial effects of exercise on individuals suffering from this disease.

The formal program culminated with two featured speakers. Kellen, a very bright, articulate 15-year-old with Type I diabetes, spoke to the audience about taking control of the management of his disease. Kellen is a freshman in the Pre-International Baccalaureate program at Central High School. He has lived his whole life here in Springfield with his parents and older brother, who is now a college freshman. Kellen was diagnosed a month after he turned 13. Kellen plays Junior Varsity Soccer and is on the Debate Squad. This year will be the sixth year in a row that the Springfield Symphony Orchestra has played an orchestrated version of one of his original piano compositions. Kellen’s favorite activities are internet gaming and X-Box competition. He also loves procrastinating, cheesecake, and the Acambaro Mexican Restaurant.

The audience also viewed a videotaped interview with Linda, an adult living with Type II diabetes. Linda has been a longtime Springfield resident and is a graduate of Hillcrest High School. She worked for many years as a beautician, and then as a department manager for Wal-Mart. She lives with Glen, her husband of 20 years, and they have 4 children and 6 grandchildren. She is a devoted grandmother, an avid Cardinals fan and loves to attend Cardinals games. She loves to spend time with her grandchildren and enjoys cook-
Multidisciplinary Forum

These two individuals shared how the disease has affected their lives and the lives of family members, and how they are living and coping with diabetes on a daily basis. At the conclusion of this very engaging formal program, audience members were treated to light refreshments and an opportunity to interact with the speakers, including Kellen.

Evaluations for the 2004 CHHS Multidisciplinary Forum were very high. We would like to thank the following units for the enormous success of this program.

**Funding** was provided by SMSU College of Health and Human Services, Ozarks Public Health Institute, Department of Physical Therapy, Department of Physician Assistant Studies, and Department of Psychology.

**The Program Committee** consisted of Dr. Cynthia L. Pemberton, Dean of the College of Health & Human Services; Dr. Helen Reid, Associate Dean; Ms. Jeanne Cook, MS, PT, CWS, Director of Clinical Education, Department of Physical Therapy; Ms. Allison Crocker, MA, CCC-SLP, Laboratory Supervisor, Speech-Language Pathologist, Department of Communication Sciences & Disorders; Ms. Michele Day, ACSW, LCSW, School of Social Work; Dr. Michael Hendrix, Department of Biomedical Sciences; Dr. Chantale Levesque, Department of Psychology; Mr. Ralph Rice, MPAS, PA-C, Academic Coordinator, Department of Physician Assistant Studies; Dr. Susan Robinson, PT, Department of Physical Therapy; Ms. Debra Savinske, MN, RN, Department of Nursing; and Dr. Rebecca Woodard, Department of Health, Physical Education, and Recreation.

**Student Volunteers** included Me’ Lissa Chy, Shain Dalton, Joe Graves, Taniza Hyder, Michelle Jenkins, Shanna Karasik, Abby Lombardo, Susan McCracken, Andrew Meyer, Laura Mueth, Melinda Paulsell, Richard Potts, Felicia Smith, Amanda Spry, Jessica Sybert, Jamie Von Trapp, Gamma Sigma Sigma, and the Physical Education Majors Club.

Most of all we are grateful to **Kellen and Linda** for allowing us a glimpse of their challenges and successes! Students, faculty, staff, and community members all benefited greatly from Kellen’s and Linda’s generosity.

Submitted by Mary Newman, PhD

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**Missouri Rural Child Welfare Training Grant Awarded**

The Missouri Rural Child Welfare Training Grant (MTP) was co-authored by Dr. Glenda F. Lester Short and Dr. Mary Ann Jennings with the help of Jackie Hinton from SMSU Sponsored Research. It is to be funded yearly for five years by the Department of Health and Human Services Administration for Children and Families—Children’s Bureau for a total of 1.2 million dollars over the five years. Dr. Short serves as Principal Investigator and Professor Diane Elliott serves as the Co-Principal Investigator. The Project Director is Mary Turner, who guides the work to be done with the help of three graduate assistants.

The grant is a collaborative effort with Dr. Dave Dixon and Ms. Janet Martin, from the Center for Research and Service, who evaluate the training components and program needs. Additionally, local and state Children’s Division workers and supervisors, and Community Partnership of the Ozarks staff, collaborate with SMSU to address the training needs focusing on the following goals:

1) Develop, implement, and evaluate a competency-based training program for child welfare workers and supervisors in 31 rural counties.
2) Improve the direct (with children and families), and indirect (with communities and other agencies), skills and competencies of Southwest Region rural child welfare frontline workers and supervisors.
3) Develop relationships with community members, leaders, and various agencies (including those that are faith based) in order to increase resources, develop programs and institute more collaborative activities.
4) Increase the access to and awareness of child-welfare services in the region.

Submitted by Glenda F. Lester Short, PhD, LCSW
CSD Participates in Innovative Collaborative Model for PhD Education

Dr. Julie Masterson is serving as coordinator of a program funded by the American Speech-Language-Hearing Association and the University of Cincinnati (UC), entitled, “Enhancing Doctoral Training for Speech-Language Pathologists.” The award provides $17,000 per year for two years, and it is used to support graduate students who will ultimately complete their research doctoral degrees in communication sciences and disorders. Rebecca Mooney, Marsha Howard, and Brittany Drury started the master’s program in speech-language pathology last summer. In addition to the typical coursework and clinical activities associated with the master’s program, these students engage in intensive research training while at SMSU. Research mentoring is provided by Dr. Masterson, Dr. Ron Netsell, and Dr. Lisa Wood, with collaboration and input from the research faculty at the University of Cincinnati. The students have traveled once to visit the UC faculty and tour their facilities. They will go to UC again in May to present their preliminary research to the UC students and faculty. Upon completion of the SMSU master’s program, the students will transition into the doctoral program at UC. Drs. Masterson, Netsell, and Wood will continue to serve as research advisors when the students move to UC.

“It’s an honor for SMSU to be able to participate in this groundbreaking collaborative model for Ph.D. education,” says Masterson. “Our discipline is somewhat unique in that there is a shortage of individuals holding research doctorates. Successful use of this model may allow additional individuals to complete the Ph.D. and ultimately assume university faculty positions.”

Submitted by Julie Masterson, PhD

Continued from page 2

Graduates

Allison McClure – 2002 BMS graduate – Completed a master’s degree in forensic science from George Washington University (Washington DC) and is now working as a DNA Specialist and director of a DNA lab at a private forensic lab in Albuquerque, NM.

Adam Josh Montgomery, DDS – 1998 BMS graduate – Private dental practice Springfield, MO.

Michelle Pannell – 2002 SMAT graduate – third year medical student at University of Missouri.

A. Jill (Cotton) Pratt – 1994 SMAT minor – Athletic trainer and instructor at Central Methodist University.

Eldon Repsher – 1996 BMS graduate – Optometrist at Walmart Vision Center, Carthage MO.

Greg Robinson – 1997 CSD graduate – is a doctoral student at Michigan State University.

Kevin Stockman – 2001 BMS graduate – PhD student in Biochemistry, University of Missouri – Columbia.

Maegan Straight – 2004 SMAT graduate – second year medical student at the University of Nebraska.

Derek Weiche – 2003 SMAT graduate – second year medical student at the University of Virginia.
NIH Funded Research in the Garrad Lab

My laboratory is interested in a group of cell surface molecules called **P2 receptors**. These receptors are either G protein-coupled receptors (P2Y) or ligand-gated ion channels (P2X). The feature these proteins have in common is their responsiveness to a specific group of chemicals called nucleotides that include such biologically important molecules as ATP and UTP.

A particular type of P2Y receptor, called the P2Y<sub>2</sub> nucleotide receptor, is increased in the body in response to tissue stress or injury and as a consequence mediate a variety of biological functions such as cell growth, differentiation and inflammation. We are trying to determine how P2Y<sub>2</sub> nucleotide receptors mediate these processes. The complete answer to this question will require knowledge of the signaling pathways in cells used by P2Y<sub>2</sub> nucleotide receptors. Preliminary data have already suggested some of these mechanisms. However, the focus of our NIH-funded study, *Mitogenic Pathway Regulation by P2Y<sub>2</sub> Receptors*, is to determine if components of the desensitization pathway of this receptor are involved in these events. Desensitization is decreased receptor responsiveness that occurs upon repeated or continual exposure to the chemicals (UTP or ATP) that activate this receptor. The proposed experiments will utilize methods to interrupt the desensitization process of P2Y<sub>2</sub> nucleotide receptors. This pathway can be inhibited by using mutations of the receptor that have altered desensitization properties, or by using biochemical and molecular reagents that interfere with signaling events in cells.

The P2Y<sub>2</sub> receptor is known to activate MAPK, a key regulator protein in cell division, differentiation, development and apoptosis of cells. Some of the ways that lead to the activation of MAPK are well studied with other receptors and are shown in Figure 1. Our preliminary data have indicated that several of these pathways are shared by activation of the P2Y<sub>2</sub> receptor. As shown, these signaling pathways are intricate and often overlap, illustrating the exquisite regulation that the cell exhibits. However, understanding the methods by which these pathways are regulated is the key to unlocking how cells respond to a variety of stimuli.

Submitted by Rich Garrad, PhD

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**Abbreviations**

- MAPK—mitogen-activated protein kinase
- PKC—protein kinase C
- Pyk2—proline-rich tyrosine kinase
- Ca<sup>2+</sup>—intracellular free calcium
- Src—Sarcoma protein, a protein tyrosine kinase
- Ras—Monomeric G protein
- Raf—or MAP kinase kinase kinase
- MEK—or MAP kinase kinase
- PI3K—Phosphatidylinositol-3 kinase
- α,β,γ G protein

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CHHS Faculty, Staff and Students enjoy Founders’ Day Activities

Above: One of three SMSU Centennial cakes, each made of 12 sheet cakes.

Left: Governor Matt Blunt and President John Keiser - SMSU gets a new name!!

Founders’ Day photo of SMSU faculty, staff and students!
Now in its second year, “Salud para la Vida” means “Health for Life”, and is serving five rural southwest Missouri counties. The project is a collaborative effort between College of Health and Human Services faculty from dietetics, social work and nursing, as well as a host of community-based agencies. Our intention from the start was to pilot a community outreach model, which involves university faculty and students in a rural community project benefiting the Latino community. The idea was funded, in part, through a 3-year, $305,000 grant from the Missouri Foundation for Health, which is a philanthropic organization whose mission is to improve the health of the people in the communities which it serves.

Salud para la Vida is designed to make an impact in the following areas:

· Health professional and student training in cultural competency and medical Spanish;
· Integration of university students into the rural environment through an interdisciplinary rural health course and rural service learning experience;
· A reduction in health disparities among Latinos through health screenings and clinical followup.

With the assistance of over 15 rural community-based agencies, our first program year was successful in providing cultural competency workshops and medical Spanish to rural health care providers. In addition, the NUR 502/SWK 502 Rural Health course is in its first semester and offers a unique interdisciplinary experience for SMSU nursing, social work, dietetics and public health students. As a part of their course requirements, students will participate in Health Fairs scheduled in April at church locations in Newton, Jasper, McDonald, Lawrence and Barry counties. This interdisciplinary model is being carefully evaluated for sustainability following its pilot phase, and may prove to be a successful model for university and community-based agency collaboration.

For further info contact:
Susan Dollar, Ph.D., scd491f@smsu.edu
Helen Reid, Ph.D., helenreid@smsu.edu
Susan Hinck, Ph.D., smh341f@smsu.edu

Submitted by Susan Dollar, PhD

Karen Johnson from the Migrant English Language Learner program in Monett provided a display of authentic Latin items for the cultural competency workshop participants.

Mark Your Calendars!

Homecoming Weekend
October 28 & 29, 2005

Visit BearFest Village (across from Plaster Sports Complex) for pre-game activities on Saturday, October 29 from 11 a.m. - 1 p.m. Football game kickoff is at 1:30 p.m.

The theme this year is “OPERATION BLAST OFF” and includes the Homecoming Parade at 9:00 a.m.
The Founders Club was established in January of 1983 to recognize the spirit of two individuals whose tremendous efforts helped gain approval to locate State Normal Number 4, now Southwest Missouri State University, (and soon to be Missouri State University) in Springfield.

H.B. McDaniel and Senator Frank M. McDavid were the two prominent Springfieldians who provided the thrust needed to persuade a commission appointed by Governor Joseph W. Folk, that Springfield was the best site for the fourth Normal School.

Since its founding in 1905, Southwest Missouri State University has served the region and the state of Missouri with distinction. In addition to achieving national recognition as a leader in business and teacher education, SMSU has established new curricula in various academic programs and graduate studies which support the five themes of the university’s mission.

Today, private support of public education is a recognized necessity. SMSU and all state-assisted universities now depend upon private philanthropy. To continue this support, SMSU has created a distinctive recognition group known as The Founders Club.

Membership is extended to those who:
1) Make an outright gift of $10,000 or more in cash, securities or real or personal property.
2) Sign a pledge to contribute $10,000 or more at a rate of not less than $1,000 per year.
3) Establish a matching gift arrangement whereby a gift by an individual is combined with a corporate match for a total of at least $1,000 annually for a period of at least 10 years.
4) Arrange for a planned gift of $100,000 or more through a bequest, life income agreement, trust arrangement or another acceptable planned or deferred giving instrument. Gifts of life insurance also may be used to qualify for membership.

Benefits of membership include:
A) A crystal award designed especially for members of The Founders Club.
B) An annual recognition dinner, hosted by the SMSU Foundation, to honor this special club and its membership.
C) Parking privileges in all campus lots, excluding Lot number 1 and parking for athletic and performing arts events.
D) Invitations to special occasions of the university.
E) Use of the Duane G. Meyer Library.
F) A lapel pin worn exclusively by member of The Founders Club.
G) A special embossed card for members of The Founders Club.

The Founders Club members are truly making a difference in the lives of the students and faculty of Southwest Missouri State University now and for years to come. For more information on how you can become a member, please contact Bob Beumer at 417/836-4547 or by e-mail at rfb131t@smsu.edu.

Submitted by Bob Beumer

Founders Club members from the College of Health & Human Services include:
Dr. and Mrs. A. Duane Addleman
Dr. and Mrs. Herbert J. Arkebauer
Dr. Wesley D. Bair
Mr. and Mrs. Cliff Beauchamp
Mrs. Virginia C. Bussey
Mrs. Seryl E. Fisher
Mr. and Mrs. Conrad Griggs
Mr. and Mrs. Ralph E. Harmon
Dr. Harry L. Hom, Jr. and Mrs. Susan Lee Hom
Dr. and Mrs. Donald D. Landon
Dr. and Mrs. Fred Maxwell
Dr. and Mrs. Harold W. Meyers, Jr.
Dr. Cynthia L. Pemberton
Mr. Harry Phelps and Dr. Jeanne Phelps
Mr. George Andrew Salmon
Ms. Debbie Myers
Mr. Jay Eckersley
Mr. & Mrs. Byron Stewart
Mrs. Mildred Wilcox
Dr. and Mrs. Richard Wilkinson
What’s New?

We would like to know what’s new in your life. Please submit information about retirements, marriages, new address, or job changes by completing this form and returning it by mail or Email to bij014t@smsu.edu. The information will be used for purposes of maintaining your permanent alumni record. This information will be printed based on availability of space within the newsletter.

Last, First, MI          Maiden

Address

City               State           Zip           Class Year

Home Phone

Spouse’s Full Name          Class Year (SMSU)

Additional information:  Major/Minor: __________________________

Include in Trends?  ___ YES  ___ NO

Don’t forget - CHHS Centennial Video and Mural unveiling and reception on May 5