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In this issue: President's Perspective American Pharmacists Month SDSU College of Pharmacy dedicates New Building

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PHARMACIST

Volume 24 Number 4

South Dakota Pharmacists Association 320 East Capitol Pierre, SD 57501 (605)224-2338 phone

(605)224-2338 phone (605)224-1280 fax www.sdpha.org

"The mission of the South Dakota Pharmacists Association is to promote, serve and protect the pharmacy profession."

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Executive Secretary Ron Huether

Clerical Secretaries Rene Hixon & Kim Kocmick-Burden

SDPhA CALENDAR

Please note: If you are not on our mass e-mail system check our website periodically for district meetings and other upcoming events. They will always be posted at: *http://www.sdpha.org*.

October American Pharmacists Month

- 1-31 American Pharmacists Month
- 1 License Renewals Due to the Board of Pharmacy (Sept. 30th)
 - Yankton District Meeting
 - Minerva's 6:30 p.m. Mitchell District Meeting
 - Steak-n-More 6:30 p.m.
- 11 Native American Day

4

10

13 Rosebud District Meeting

Wild West, 865 W. 2nd St., Winner, SD 6:30 p.m.

- 14 Aberdeen District Meeting Maverick's/DEC, 6:30 p.m.
- 17-23 National Hospital & Health System Week
- 21 Watertown District Meeting TBD
- 22-25 National Community Pharmacists Association (NCPA) 112th Annual Convention & Trade Exposition, Philadelphia, PA
- 26 National Pharmacy Technician Day
- 27-28 SDSU Pharmacy Days
- 30 Sioux Falls District Meeting

Hilton Garden Inn, 5300 S. Garden Circle, Sioux Falls Resident CE Program - 8 a.m. with lunch and business meeting to follow.

31 Halloween

November

- 1 Daylights Savings Time Ends
- 11 Veteran's Day
- 17-21 NASPA Executive Meeting, Palm Springs, CA
- 25 Thanksgiving

December

5-9 ASHP Midyear, Anaheim, CA

25 Christmas

* Cover photo courtesy of Vickie Prussman - Dean Hedge speaks at SDSU College of Pharmacy Building Dedication

SOUTH DAKOTA PHARMACIST

The SD PHARMACIST is published quarterly (Jan, April, July & Oct). Opinions expressed do not necessarily reflect the official positions or views of the South Dakota Pharmacists Association. The Journal subscription rate for non-members is \$25.00 per year. A single copy can be purchased for \$8.

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PRESIDENT'S PERSPECTIVE



Earl Hinricher SDPhA President

FROM THE PAST TO THE FUTURE, CHANGE WILL CONTINUE IN PHARMACY

For most of us, this particular summer moved along too fast. In May we lost Melanie's father, a month prior to his 82nd birthday. Years before, we lost her mother to cancer. Now we have realized family traditional duties have been passed onto us. We now organize the family events and pass down our family history to the next generation.

As with many of you who have lost family members, you spend three or four months organizing and finalizing matters of the estate. And you may have come across a number of surprises along the way. We have run across a number of old documents and pictures that could be 75 or 100 years old. There were pictures of events and relatives whom we have never met. There were old books with personal notes hidden inside. There were many items that would have no value except to family and friends.

In preparation for our 125th anniversary convention next June, we have begun organizing a convention committee in the Sioux Falls area to help us to prepare this special event. As I dug through family treasures this summer, it occurred to me many of you may also be in possession of family and pharmacy history. If you are willing to share your history, stories, pictures and memorabilia of pharmacy, this convention would be an ideal opportunity to display those articles. I have come across old pictures, bottles and prescriptions from early years of pharmacy in South Dakota.

The summer was also filled with pharmacy students on rotation and mentoring. We always enjoy having students around. I think we learn as much from them as they learn from us. This summer also kicked off a national leadership challenge. A number of our pharmacy students have been linked to state association officers. In this project, mentoring pharmacists in leadership positions share the various duties and activities of their job or particular office with the students. I'll keep you updated on this project and share outcomes.

If you missed the dedication of the Avera Health and Science Center on September 9th, you missed an awesome event. This is now the home of Pharmacy, Chemistry and Bio-chemistry Departments on the SDSU campus. I was able to take a tour of the new building. It is very impressive compared to the classrooms and labs where I spent my time. I am sure each of us has stories about our time on campus and the various buildings where we attended class. When you are in Brookings, do take the time to stop and have a tour of the building.

As you all know, October is American Pharmacists Month. It is a month long recognition of the significant contributions of all pharmacists in all practice settings. Pharmacists have moved from behind the counter to a challenged role on the health care team. Our tasks continue to evolve as health care reform takes shape in our various communities. Health care reform may not be the same for each of us but we still need to be prepared for change.

We have placed a link on our web site to help you get prepared for October. This is your opportunity to be recognized, to enhance your image, and to educate the public as well as stress the importance of knowing your medications. Even though I spend most of my time within a hospital now, I have established a relationship in my community as a pharmacist, business manager and a leader. I plan on doing a number of speaking engagements with different groups within the community. This is your opportunity to do the same.

We have come to rely on our pharmacy technicians as part of the pharmacy family. This is also time to support your pharmacy technicians who have opportunities to attend workshops and education programs. As a working pharmacist I find it challenging to keep ahead of changes and new information on a daily basis. Our technicians have the same challenge. If you do not have pharmacy technician programs available in your community, you have an opportunity in October to send someone to Pierre the weekend of the 9th for the SDAPT fall program. They have an excellent slate of continuing education planned.

I have had the opportunity to work with the Board of Pharmacy to put together an Ad Hoc Committee to study the rules and laws for immunization and formulate a possible expansion of immunization options. For those of you who attended one of the last meetings at the convention in June, this was a well attended discussion on immunization.

As fall arrives, another immunization season begins prior to the departure of many snowbirds in our communities. I know many of you have ordered your flu and pneumonia vaccines ahead of schedule. For those of you who have working relationships with your local physicians, take the time to ensure your physician standing orders for immunizations are ready to go as well. If not, take the time now to arrange a meeting with your physicians to address any issues prior to starting your immunization program.

This fall my dad will be turning 90. Not too long ago I gave him a book on aircrafts used in the Pacific arena during World War II. Once he began looking over the book and the pictures, he lit up like a light bulb. He was in the Army Air Force at the time. Events he had suppressed began pouring out. He recalled numerous missions he flew. Once again, this is what I expect to see as we celebrate 125 years of pharmacy next year. Many of you have history of events as pharmacy grew into its present form today. Consider displaying your history for the rest of us to enjoy and reminisce.

Thank you for allow me to serve you,

Earl Earl Hinricher, SDPHA President

DIRECTOR'S COMMENTS



Sue Schaefer Executive Director

Happy American Pharmacists Month All!

American Pharmacists Month provides South Dakota Pharmacists and Technicians with a wonderful opportunity to celebrate the pharmacy profession, recognize pharmacy staff, and to reach out to your patients. This month-long observance provides a conduit to develop special events or to offer new and improved services and care that recognizes a pharmacist's contribution to the healthcare team. The American Pharmacists Month theme is "Know Your MEDICINE, Know Your PHARMA-CIST." Located within the pages of this journal, you'll discover ways to celebrate and showcase your profession. The Governor has also signed a proclamation in celebration of pharmacy...something that should make all of you very proud!

We're always looking for something extra special to set off the celebration...these months are very busy for pharmacists as immunizations take center stage, and sometimes there's little time for other things. At the recent SDPhA Board Retreat, board members discussed options to move the pharmacy profession forward and suggested ways to stay engaged with opportunities presented that improve not only patient care, but put pharmacy out there as a profession excited about continuing to raise the bar. Out of that meeting and discussion began the partnership with the Minnesota Pharmacists Association and their AWARxE program.

Sometimes what begins with a tragic situation, ends in an opportunity to help others, which is what AWARxE is all about. I encourage you all to visit the AWARxE website at **www.awarerx.org** to see what good things are happening. AWARxE has also teamed up with the D.A.R.E. folks to get the message out to young people about the dangers of illicit online pharmacies, counterfeit medications, and the potential dangers of the abuse of prescription drugs. This is truly a wonderful public awareness campaign, supported by the likes of NABP, APHA, to mention a few, whose mission is to provide individuals with the information they need to enable them to make the right decisions about prescription and OTC medications.

I know many of you are also busy preparing for your District Meetings. Please check the calendar in the front of the Journal or go online at www.sdpha.org for a listing of meetings that have been scheduled. This is a great time to get together and network with your colleagues about national, state and local happenings. The air is heavily charged with politics these days, and many issues that affect you begin at the grassroots level. Never underestimate your clout when it comes to your hometown lawmakers. That's where the action is! Your board members and I will be heading out to visit with you about the issues this fall. Please don't hesitate to contact us regarding pharmacy matters. We're here to represent your best interests!

I wish you all the best,

Sue

Contribute to the 2010-2011 South Dakota Pharmacists Association District Dues and SDPhA Commercial and Legislative Fund!

> Visit our website at www.sdpha.org

Thank You for Your Support!

South Dakota Board of Pharmacy



Ron Huether Executive Secretary

STAFF MEMBER RETIREMENT

The Board of Pharmacy congratulates Rene Hixon, Senior Secretary, on her retirement. Rene is leaving after 12 years of very capable and dependable service to the Board. Rene and husband, Harry, will be enjoying retirement by spending time living in their camper in various locations in the US. Initial plans are to spend winters in Florida and summers in South Dakota. Rene will be missed by the pharmacists, pharmacy technicians and many other individuals she helped during her time in the Board office.

NEW REGISTERED PHARMACISTS

The following candidates recently met licensure requirements and were registered as pharmacists in South Dakota: Bobby Bartlett, Tamara Berg, Nellie Berkenpas, Mindy Beusch, Brandon Bloomgren, Cory Bradley, Bridget Bradley, Molly Branaugh, Dale Christensen, William Coolidge, Jillian Corbett, Gregory Daniels, Austin Danielson, Lucas Darling, Amy Engelhart, Ann Foede, Tyler Geerdes, Sara Gossen, Lacey Haensel, Jill Haiar, Carrie Hespen, Jaccii Hoffbeck, Danita Hoffman, Stacy Hoitsma, Jessica Hummel, Bobbi Johnson, Katherine King, Cole Kling, April Krull, Timothy Larson, Amy Lebrun, Sara Lout, Maari Loy, Mandy Maasjo, Justin Manning, Erin McCleeary, Jamie Meister, Jessica Meyer, Danielle Milbrandt, Heidi Miles, Jean Mingo, Amanda Muir, Kyle Nebelsick, Jessica Okins, Erin Olson, Satyam Patel, Tasha Rausch, Angela Ritter, Joseph Roby, Kimberlie Roiger, Alexis Scherr, Dustin Schrader, Rehme Sutton, Kimberly Swingler, Sylvia Thomley, Andrew Tonneson, and Darci Weakland.

NEW PHARMACIES

Pharmacy licenses have been issued recently to: Winner Healthmart Pharmacy, Winner, Daniel Fiebelkorn, Pharmacist-in-charge; Hy-Vee Pharmacy #6, Sioux Falls, Kristin Williams, Pharmacist-in-charge.

TECHNICIAN REGISTRATION RENEWALS

Renewal notices and a list of registered pharmacy technicians were mailed to each South Dakota pharmacy in early September. The pharmacist-in-charge is responsible for seeing that each pharmacy technician renews their registration before October 30. The pharmacy technician may not be present in the pharmacy if the new certificate is not posted in the pharmacy on November 1st. After the technician completes the renewal form the PIC must review the information and sign before sending it to the Board office.

A technician who has never registered with the Board must complete the registration process within 30 days of hire. Both the initial registration form and renewal form are located at the board web site www.pharmacy.sd.gov. We encourage you to call or email our office with any questions about the initial registration or renewal process.

TECHNICIAN EDUCATION AND TRAINING

Today in our busy pharmacies we continue to utilize the skills and knowledge of our Pharmacy Technicians more and more. Pharmacists would be unable to fill the present volume of prescriptions and provide adequate counseling to our patients without the help of capable Pharmacy Technicians.

The National Association of Boards of Pharmacy (NABP) has convened a pharmacy technician education and training task force the past two years. The 2008 task force recommended that all pharmacy technicians should take the Pharmacy Technician Certification Board (PTCB) national certification exam. The 2009 task force recommended that all pharmacy technicians should have some type of formal education now (including structured on-the-job training) and that by year 2015 all pharmacy technicians should graduate from an accredited pharmacy technician educational program.

Pharmacists should encourage the Pharmacy Technicians working with them to complete a training program now and make plans to take the national certification exam.

We have information on suitable text books to use for training and/or for review in preparation for the exam. The South Dakota Association of Pharmacy Technicians also offers review sessions periodically throughout the state.

PHARMACIST PRECEPTORS

Preceptors need to be aware that the intern Practical Experience Application/Affidavit must be submitted at the beginning of the student's internship. A new Practical Experience Application/Affidavit is also needed when an intern changes pharmacies or preceptors. The Progress Report of Internship should be filed with the Board of Pharmacy within five days of the ending of the experience. Failure to comply with these rules will result in a reduction of the hours approved by the Board of Pharmacy.

Rules went into effect August 2009 requiring interns to have 2000 hours toward licensure. Board of Pharmacy Administrative Rule 20:51:02:12 describes additional requirements and limitations on the hours Interns may earn. Please help your interns accrue hours needed toward licensure by signing and submitting their forms in a timely manner.

PRESCRIPTION DRUG MONITORING PROGRAM

During the most recent legislative session a new law was passed establishing Prescription Drug Monitoring (PDMP) in South Dakota. This law places the responsibility for implementing and operating this program with the Board of Pharmacy. Rep. David Lust, Rapid City, provided the leadership in drafting the bill and gaining legislative support. The law provides for an Advisory Committee made up of prescribers, dispensers and other stakeholders to provide advice and make recommendations to the Board regarding how to best use the program to improve patient care and foster the goal of reducing misuse, abuse and diversion of controlled substances. Board of Pharmacy staff will be drafting administrative rules to define the details of program within the authority and mandate of the law. As the rules are developed they will be available on the Board website. We encourage pharmacists to comment on the rules prior to the public hearing.

Drug Enforcement Administration (DEA) has been a long time proponent of PDMP's due to the proven effectiveness in curtailing the diversion and abuse of controlled substances. The PDMP involves the exchange of health information. Pharmacies will be submitting prescription drug utilization data to the program. Data submission will be mandatory for all pharmacies and dispensers who provide controlled substances to South Dakota patients. Data will be collected online via an interface data dump (like online insurance adjudication). The information will be transferred to the secure data base.

Prescribers and pharmacists will access this information for the care of their patients. The program is not intended to be used to target subjects for investigation, but rather to identify illegal activity such as prescription forgery, indiscriminate prescribing, and to deter "doctor shoppers". Health care providers will have access to review the data online through a secure server once the data has been collected, but are not required to access the database prior to writing or dispensing a prescription.

According to other states, the implementation period will take about one year. We anticipate that our program will be operational by July 1, 2011. Executive Secretary Ron Huether has submitted a request to the US Department of Justice – Bureau of Justice Assistance - Harold Roger's PDMP Implementation Grant. If we are successful in obtaining the \$400,000 grant, the program will be funded through September 30, 2012.

Staffing for the program will include: a part time pharmacist to serve as PDMP director and a full time clerical/technical asso-

ciate to perform day-to-day data review and provide responses to inquiries. We will contract with a vendor that currently provides data collection and storage services to existing programs in other states. The PDMP director will be responsible for designing educational materials for health care providers and the public. The materials will include details of PDMP and how prescribers and dispensers can use the information to provide better patient care. The director will provide face-toface education to prescribers and dispensers around the state.

BOARD MEETING DATES

Board meeting dates: The next scheduled meeting will be held on December 3 in Sioux Falls. Please check our website for the time, location and agenda.

BOARD OF PHARMACY STAFF DIRECTORY

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Board of Pharmacy Website: www.pharmacy.sd.gov

SDSU PHARMACY FRATERNITY EARNS NATIONAL AWARD

BROOKINGS, S.D. — A pharmacy fraternity at South Dakota State University is setting high standards for academic achievement.

The Gamma Kappa chapter of the Kappa Psi Pharmaceutical Fraternity, a professional pharmacy fraternity at SDSU, has been awarded the Frank H. Eby Scholarship Tray, presented to the Kappa Psi chapter with the highest grade-point average in a one-year period. Kappa Psi, the world's oldest and largest professional pharmacy fraternity, has 77 collegiate chapters in the United States and Canada.

The SDSU chapter is a four-time winner of the scholarship tray since the award's inception in 1965. That includes back-to-back wins in 1997 and 1998 and 2009 and 2010. That tradition of excellence helps inspire the pharmacy students.

"It's something we've always done well, and we take pride in doing well," said Charles Elroy III of Depoe Bay, Ore., the regent, or president, of SDSU's Kappa Psi chapter during the fraternity's last win. In winning the award, the 63 Kappa Psi brothers competing for the scholarship tray each recorded a grade point average of 3.0 or better.

The fraternity seeks to excel at academics without a formal program in place to boost grades. Instead, the Kappa Psi brothers rely on each other.

"They know they can always go to their Kappa Psi brothers if they need help," Elroy said. "We make that clear to the incoming class." The SDSU chapter was also ranked as the 10th best overall in the entire Kappa Psi fraternity.

Chapter adviser Gary Van Riper explained that the ranking is based on a comprehensive chapter report that awards points in certain areas. That report includes information about membership, new members, involvement in pharmacy-related organizations and community service.

"They are very active in community service projects," Van Riper said.

Those activities include projects for the Ronald McDonald House in Sioux Falls and Brookings-based activities like Relay for Life, box top collections for local schools, the Backpack Project, a highway clean-up project and Boys and Girls Club activities.

"A lot of this is student-driven," said associate professor Eric Kutscher, a Kappa Psi adviser. "It's them wanting to do it, wanting to do these things."

According to Elroy, he and his fellow students don't necessarily get involved in the community to win awards.

"It's a little bit of motivation for us to do well," Elroy said, "but school comes first for us."

-www.sdstate.edu-

SDSU PHARMACY FACULTY MEMBER ELECTED TO NATIONAL BOARD

South Dakota State University faculty member Tom Johnson has been elected to the Board of Directors of the American Society of Health System Pharmacists

Johnson, professor of pharmacy practice in the College of Pharmacy at SDSU, will begin his three-year term on the 12-member board June, 2011.

"It was an honor to be nominated, and I'm very humbled and excited to actually be elected," said Johnson, whose practice site is in Sioux Falls as a critical care pharmacist and critical care pharmacy residency program director at Avera McKennan Hospital and University Health Center.

Headquartered in Bethesda, Md., ASHP is a 35,000-member national professional association that represents pharmacists who practice in hospitals, health maintenance organizations, long-term care facilities, home care and other components of health-care systems.

ASHP is the only national organization of hospital and healthsystem pharmacists. Its mission is to advance and support the professional practice of pharmacists and serve as their collective voice on issues related to medication use, public health and patient safety.

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Johnson, who joined the SDSU pharmacy staff as an assistant professor in 1998, is past president of the South Dakota Health System Pharmacists. Having previously served on two ASHP councils, he is cognizant of what it means to be elected to the national board of directors.

"With as many rural institutions that we have in South Dakota and the region as well as many of the things that we are doing at SDSU and at Avera, I think having a board member from this state will be particularly helpful, "he said. "It's a win-win situation for all parties involved."

Johnson earned his bachelor of science degree in pharmaceutical sciences in 1995 from North Dakota State University. He obtained his doctor of pharmacy degree from NDSU in 1997 and did his residency at St. Alexius Medical Center in Bismarck and NDSU. In 2009, Johnson completed his master's degree in business administration from the University of Sioux Falls.

Story courtesy of SDSU-

EXECUTIVE PROCLAMATION FROM GOVERNOR



South Dakota Pharmacist

Celebrate Your Profession!



American Pharmacists Month

October 2010

October is American Pharmacists Month! It's time to celebrate your profession, recognize your pharmacy staff, and reach out to your patients. SDPhA has compiled some creative ways for you and your colleagues to celebrate American Pharmacists Month!

American Pharmacists Month

In the Community Pharmacy Setting

- Use a special answering message promoting American Pharmacists Month when you answer your phone, "Thank you for calling. We are celebrating American Pharmacists Month. How can I help you?"
- Conduct an Immunization Day (flu clinic), blood pressure clinic or osteoporosis screening. Create a patient care center in your pharmacy.
- Hold a week long event of brown bag medication reviews in your pharmacy.
- Decorate your pharmacy for the month of October with banners and posters highlighting American Pharmacists Month.
- Hold an educational session with snacks at a convenient time, call it "Snacks & Facts" and invite the public.
- Hold an "open house" at your pharmacy and hand out goody bags with an informational brochure inside.
- Give an OTC tour to your patients on how to select the best OTC products for their individual condition.
- Invite local students to visit your pharmacy for a class trip and give them a tour of the pharmacy.
- Reach out to local media.
- Host a visit for your senator or representative and provide him/her with a view of the role of the pharmacist.

Hospitals, Institutions, Managed Care &

Long Term Care Settings

- Place information in your facility's newsletter about American Pharmacists Month.
- Decorate the hospital or institution lobby with posters or displays. Create a lunch tray tent card explaining the goals of the pharmacy and services you offer.
- Hold an "open house" for all employees to visit the pharmacy.
- Host a visit for your senator or representative and provide him/her with a view of the role of the pharmacist.
- Reach out to local media.

Student Pharmacists/Colleges of Pharmacy

- Create a plan and be prepared to help your employer or rotation site hold activities and events for the month of October.
- Create a banner and ask your school to display the banner to promote American Pharmacists Month.
- Hold a t-shirt fundraiser at your school in honor of American Pharmacists Month.
- Talk to high school students about pharmacy careers.



Please send SDPhA information on what you are doing this year to celebrate American Pharmacists Month. Send us an email at sdpha@sdpha.org or fax at 605-224-1280 telling us your plans. Make sure to include names of those who participated and photos, if available. Visit our website at www.sdpha. org and click on "October is American Pharmacists Month" for more ideas on how to celebrate. This is a celebration of pharmacists and pharmacy-so make sure to share your story!

American Pharmacists Month

October 2010



Make sure to recognize your pharmacy staff during American Pharmacists Month! October is the perfect time for managers and supervisors to show their appreciation for the great work the pharmacy staff does throughout the year.

Go Out into Your Community

- Senior Citizen Centers are always looking for new, exciting educational events. Set up a brown bag medication review event at a local Senior Citizen Center.
- Hold a healthcare event in your community or get involved in your local health fair.
- Present information on pharmacy to people in the community. Promote the event in advance and invite the public.
- Speak with the local school nurse on educating high school teachers about pharmacy. Ask the guidance counselor if you can set up a presentation on careers in pharmacy for Career Day.
- Contact the media in your area, write a news release and talk with the media about American Pharmacists Month.



Don't Forget to Celebrate!

October 17-23, 2010 is National Hospital and Health-Systems Pharmacy Week

October 26, 2010 is National Pharmacy Technician Day

Make sure to show your appreciation for your pharmacy technicians on this day by acknowledging their significant contribution in the pharmacy!

Resources

For more information visit APhA website at:

http://www.pharmacist.com

APhA has a webpage full of promotional items and gifts available to you for American Pharmacists Month. For more information visit:

http://www.pharmacist.com/Content/NavigationMenu3/Newsroom/ AmericanPharmacistsMonth/American_Pharmacists.htm Visit our website at www.sdpha.org and click on "October is American Pharmacists Month" for more ideas on how to celebrate.



Spread the word! Pharmacists are the medication experts!

Fourth Quarter 2010

HISTORY OF PHARMACY IN SOUTH DAKOTA

REFERENCES FROM A HISTORY OF PHARMACY IN SOUTH DAKOTA BY HAROLD H. SCHULER

Continued

1930 - 1939

1930

- Four-year pharmacy course supported by convention and passed into law
- Three fields of pharmacy: Retail, Pharmaceutical Research, and Clinical & Hospital
- Pharmacy enrollment: 86 in 1930; 62 in 1931; and 100 in 1938.

1931

- Tuition and fees in 1931 were \$151 per student along with lab fees of \$21 each.
- Pharmacies required to be licensed beginning in 1931.
- First drug inspector, F.E. Briggs of Sioux Falls was hired by the Board of Pharmacy.
- In 1931, 331 pharmacies were licensed in South Dakota.

1932

• American College of Pharmaceutical Education (ACPE) Approved.

1937

• District 5 of NABP created for South Dakota and four other surrounding states.

1938

• Dean earl Serles, while at State College, was elected President of AACP.

1940 - 1949

1940

• WWII has a strong impact on pharmacies and pharmacists – many drafted for military duty.

1943

• Convention of 1943 and others throughout wartime cancelled - shortages of gasoline and tires made it difficult for pharmacists to attend.

1944

- Board of Pharmacy grants free license renewals to 101 South Dakota pharmacists serving in the Armed Forces.
- One hundred and nineteen South Dakota pharmacists served in all branches of the service. Seven of the 119 pharmacists were killed in action.
- Veteran's Prescription Program began for WWII veterans with a service-connected disability.

1945

 Legislative Session – SD Pharmacists share office space with the South Dakota Retail Merchants (ironically, the SDPhA Office is currently located within the SD Retailer's Plaza across from the Capitol in Pierre)

HISTORY OF PHARMACY IN SOUTH DAKOTA

REFERENCES FROM A HISTORY OF PHARMACY IN SOUTH DAKOTA BY HAROLD H. SCHULER

1950 - 1959

1950

- Delegates at the 1950 Convention vote to create a Commercial and Legislative Session (C&L Section) It's purpose: to help with legislative lobbying, and provide commercial services to the profession pharmacy.
- The SD College of Pharmacy reported that 57 students graduated with their B.S. degrees in 1950, 49 men and 8 women. At that time, it was the largest class in the history of the College of Pharmacy.

1951

 Retail Druggists Mutual Insurance Association of Iowa began doing business in South Dakota in 1951 (you know them currently as Pharmacists Mutual Insurance Company)

1952

 The South Dakota Pharmaceutical Association was comprised of 15 Districts in 1952

1953

• In 1953, the pharmacy license was increased from \$10 to \$25. A bill to license drug clerks in the 1957 Legislative was placed on hold until another Legislative Session.

1954

• The Whitehead Chapter of SDPhA, established in 1923, became the South Dakota Chapter of Student APhA in 1954.

1955

• A 1955 South Dakota Law created a position called Pharmacy Intern.

1956

- In 1956, a South Dakota Prescription survey showed that 5.9% of prescriptions were compounded, and 94.1% were dispensed. The average prescription price was \$2.68.
- In 1956, the Chi Chapter of Kappa Epsilon Pharmaceutical Society was formed on campus, and Gamma Kappa Chapter of Kappa Psi Pharmaceutical Fraternity was organized in 1958.

1958

- Interprofessional Committee meets with the South Dakota Medical Association in 1958. Their report to the Association Convention indicated that the two groups agreed on the following:
- Physicians discontinue giving free samples except for needy patients
- SDMA recommend discontinuance of physician dispensing and label it an unethical practice
- Urge physicians to mark refill or no refill on prescriptions
- Maintained that the AMA Code of Ethics prohibited doctor-owned clinic pharmacies (at the time there were three in South Dakota)
- When clinic leases space to a pharmacist, rent should not exceed by more than 25 percent that paid by doctors in area for like space
- The Association develops a new award called the "Honorary President's Award"

1959

• 1959 The Bowl of Hygeia Award is provided to a pharmacist for outstanding professional and community service



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South Dakota Pharmacist

PSYCHOPHARMACOLOGY: THE ROLE IN HOLISTIC CARE

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The continuing education conference "Psychopharmacology: The Role in Holistic Care" is a collaborative effort of South Dakota Human Services Center and South Dakota State University College of Pharmacy. The conference will provide attendees with up to eight hours of continuing education credits. The emphasis is on current therapy while recognizing the need for individualization of care for patients with mental illness. Presentations include; treatment of depression, anxiety, and schizophrenia, adolescent psychopharmacology, and the role of herbal medicines in psychiatry. Presenters are Drs. Travis Hansen, Alan Brevik and Galen Van Kley from SD HSC along with Drs. Michael Lemon, Jim Clem, Eric Kutscher and Debra Farver from SDSU College of Pharmacy. Jenny Herrick, RN, BAS, DTM, CLL will give a special presentation on "Everyone Winds Up a Winner".

The target audience is; physicians, physician's assistants, nurse practitioners, pharmacists, pharmacy technicians, nurses, psychologists, counselors, chemical dependency counselors, social workers, occupational therapists and nursing home administrators.

The date is **November 3, 2010** from 7:30 AM – 5 PM at the SD Human Services Center South Training Center in Yankton, SD. The cost is \$75 before October 18, 2010 (\$100 after October 18, 2010). For additional information contact: HSC Staff Development at 605-668-3592 or email pam.folkers@ state.sd.us





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South Dakota Pharmacist

SDSU College of Pharmacy Dedicates New Building

Many pharmacists, students and dignitaries were on hand, September 9, 2010, as SDSU's College of Pharmacy proudly dedicated their new building, the Avera Health and Science Center. Dean Dennis Hedge acted as the Master of Ceremo- nies for this historic event.	We've prepared a small collage of photos, courtesy of Eric Kutscher, Vickie Prussman and staff, for your viewing pleasure.Our sincerest congratulations to the SDSU faculty and students, and we commend many of our generous pharmacists who donated to the project.
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South Dakota State University College of Pharmacy





Dennis Hedge Dean

It has been a great start to the 2010-2011 academic year at the College of Pharmacy. In the lines below, I would like to highlight a few of the more notable items and achievements.

The Dedication Ceremony of the Avera Health and Science Center on September 9th was a truly historic and memorable event. All of us at the College are grateful that so many of our alumni and friends from across the country were able to join us for this special occasion. We were very proud to show our guests how the new building will enhance our teaching, learning, and research efforts. Now that we have moved into this fantastic new facility, we are well positioned to educate pharmacy practitioners and pharmacy science researchers of today and tomorrow for many years to come.

The College also made history on August 31st when it welcomed an incoming Pharm.D. class of 80 students at our P1 Year Orientation Program. A class size of 80 is the largest that we have ever had and is 10 more than we had admitted into our program the previous four years. This increase was made possible because of our move into the spacious Avera Health and Science Center and the continued quality depth of our applicant pool.

The College's Ph.D. in Pharmaceutical Sciences program continues to do very well and was instrumental in helping us reach a record high in grant awards at the College of just under \$3 million this past fiscal year. The program achieved additional success as two more students recently completed requirements for the Ph.D. in Pharmaceutical Sciences degree. In maintaining our current optimal enrollment, the Pharmaceutical Sciences Department also welcomed two newly admitted students into the program.

The College's Kappa Psi Chapter, Gamma Kappa, was once again the recipient of the Frank H. Eby Scholarship Tray Award. This honor is given to the Collegiate Chapter with the highest grade point average in a one-year period, based upon their membership and their school's grading system. The Brothers of Gamma Kappa, along with their advisors Dr. Eric Kutscher and Mr. Gary Van Riper, are to be congratulated for this recognition.

It is also with great pride that I announce that Mr. Dirk White, Class of 1985, is the College's 2010 Distinguished Pharmacy Alumnus. Mr. White was named the Alaska Young Pharmacist of the Year in 1987, has received the Bowl of Hygeia Award from the Alaska Pharmacists Association, and was named the national recipient of the Willard B. Simmons Independent Pharmacist of the Year by NCPA in 2006. In addition, Dirk's pharmacy was named the Business of the Year by the Sitka, Alaska Chamber of Commerce in 1999.

Finally, we are extremely proud that Dr. Tom Johnson, Professor of Pharmacy Practice, was elected to serve on the American Society of Health-System Pharmacists Board of Directors. Tom begins his term in June 2011, and will serve all of us very well.

Warm regards,

Dennis D. Hedge, Dean of Pharmacy

ACADEMY OF STUDENT PHARMACISTS



Kayley Lyons APhA-ASP President

Greetings from APhA-ASP!

The start of school signifies the jump starting of our APhA-ASP Chapter at SDSU. Students arrive from summer break energetic and ready to become involved. The planning from the Spring and Summer semester have paid off as we lay out our new and returning activities for the Fall.

Our pre-pharmacy students have become an indispensible part of our chapter. However, they have felt uncomfortable walking into a Parli Pro meeting of over 300 students varying in experience. This year we will have a pre-pharmacy only introduction with ASP educational games and kickball.

Last year our chapter launched the first ever Big Brother – Little Brother program where we matched up a professional student with a pre-pharmacy student. To build on top of our ground work from last year, this year we are jump starting the program at our annual "Welcome Back Picnic." Students will be matched up with their brother/sister at the picnic. This will allow the students to socialize during the dinner which was graciously donated by SDPhA. After dinner students will be competing in threelegged races and IV bag toss.

Another new event was created from students feeling uneasy during patient care projects. Due to our split campus, the P1's and P2's run the majority of our screenings and booths. Our chapter will be providing a full week of education to its members. Each day will be a different patient care topic presented by a faculty. We will also be supplying different lunches the whole week such as sloppy joes, nachos, pizza and other college student staples. This event will even be open to pre-pharmacy students who will gain a glimpse into their upcoming years.

Rounding out September is our first couple of business meetings. The business meetings will be spruced up this year with fun kickoffs. Each meeting will jump start with "Minute to Win It" challenges. Randomly selected members will compete in fun competitions for \$25 gift cards. Also, our date planning is improving and allowing for busy pharmacy students to schedule our events in. Lastly, we are rewarding our members for their hard work with the "Hats Off Awards". Each meeting we will award these three traveling trophies which are a cowboy, army, and baseball cap. These three students will also win a lunch with our Dean, Dennis Hedge, who will be donating the lunches. Also, in the fall our chapter will continue the Pharmacy Organization Fair. Traditionally over 150 students are in attendance. The attendees travel from booth to booth learning about each one of our committees as well as other pharmacy organizations.

More than anything, Fall represents the membership drive. Our chapter wants every pharmacy student to have the chance to get involved. We value what we have to offer to pharmacy students. Skills such as leadership, teamwork, and patient care cannot be learned inside of the classroom. Please help our chapter and encourage any pharmacy student you know to join!

Have a great fall!

Sincerely Yours,

Kayley Lyons APhA-ASP President South Dakota State Chapter

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SD Association of Pharmacy Technicians

Phyllis Sour

SDAPT President

As I write this, we are in the final stages of planning our Fall Business Meeting/CE, which should prove to be an enjoyable and educational day. I would like to thank everyone that has volunteered and helped with the event.

As of September 1st, we have entered the 2010-2011 membership year. I would like to encourage all of our members to please renew your membership. The dues remain at \$35.00 and the renewal form can be found on our website {www.sdapt. org} and click on membership reg.form.

October is American Pharmacist Month, and on October 26th we celebrate National Pharmacy Technician Day. This presents us with an opportunity to plan activities and to celebrate and promote our practices and profession.

Thank you to all of our members for your continued support, we always welcome your comments and suggestions. If you have any questions on becoming a member, please contact me or any of our officers.

Phyllis Sour

Contact information Phyllis Sour,pep12009@rap.midco.net Twila Vavra,tvavra@hotmail.com Diane Feiner,feinerd@sanfordhealth.org Bonnie Small,bnnsmll@yahoo.com

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ATTENTION!!! This form is for membership in the South Dakota Association of Pharmacy Technicians (SDAPT) only and should not be confused with technician registration that is required by the South Dakota Board of Pharmacy. Any fees submitted are non refundable.

SD Society of Health-System Pharmacists

Jan Opperman

SDSHP President

Greetings from SDSHP!

The trees are beginning to turn colors which can only mean that Fall has arrived. Fall is a busy time for the South Dakota Society of Health-System Pharmacists. Here is a brief update of our most recent as well as upcoming SDSHP activities:

GVR Society Open Golf Classic

The 9th Annual Gary Van Riper Society Open Golf Classic was held July 23rd at Baker Crossing Golf Course in Sioux Falls. The event was very successful as we raised nearly \$2100 to support SDSU pharmacy student scholarships. Thank you to Tyler Turek for organizing this successful and fun event. Thank you to all the participants and volunteers for supporting this event! Special thank you goes out to our Platinum Sponsors: Gary & Sharon Van Riper and Avera McKennan Hospital Pharmacy; our Gold Sponsors: Tom & Jodi Johnson and Tyler & Kristin Turek; and our Silver Sponsors: Becky Baer, Pharmacists Mutual Insurance, Ron Johnson and Sue Feilmeier.

ASHP Midyear Clinical Meeting – Dakota Night Reception

Once again we will be hosting a Dakota Night Reception for pharmacists, students and technicians during the Annual ASHP Midyear Clinical Meeting in Anaheim, California. Please join us for refreshments and networking opportunities on Monday, December 6th, 2010 from 6-8 pm at the Hilton Anaheim in Room Laguna AB.

ASHP Election Results

We are proud to announce that Tom Johnson has recently been elected to the ASHP Board of Directors. He will serve on the ASHP Board of Directors from 2011 to 2014. Tom is a clinical pharmacist at Avera McKennan and a professor for SDSU College of Pharmacy. Congratulations and thank you for your dedication to our profession!

35th Annual SDSHP Conference

Mark your calendars for the 2011 SDSHP Annual Conference to be held April 1 and 2 at the Ramkota Hotel and Conference Center in Sioux Falls. Our conference planning committee is hard at work planning another high quality conference for pharmacists, technicians, students and vendors!

Join SDSHP

If you are interested in joining SDSHP we have an online membership application available. Check out our website at www.sdshp.com.

Have a great Fall!

Jan Opperman, PharmD President South Dakota Society of Health-System Pharmacists www.sdshp.com



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AND THE LAW By Done R McGuire Jr., R.PH., J.D

This series, Pharmacy and the Law, is presented by Pharmacists Mutual Insurance Company and your State Pharmacy Association through Pharmacy Marketing Group, Inc., a company dedicated to providing quality products and services to the pharmacy community.

Think Before You Speak

Pat the pharmacist had been having a stressful afternoon in the pharmacy when Mrs. Green came in with 3 prescriptions from Dr. White in the next town over. Pat looked over the 3 prescriptions and saw that they were all controlled substances and all were in high dosages.

"Mrs. Green, I can't believe that you continue to see that doddering old fool, Dr. White! When are you going to start seeing a real doctor? If you keep going to Dr. White, he is going to kill you! Our store refuses to fill any prescriptions for any of his patients anymore."

Two weeks later, the county sheriff served Pat with a lawsuit. Dr. White sued Pat for slander since Pat's statement was made verbally to Dr. White's patient in front of other customers in the store.

Defamation is the publication of anything injurious to the good name or reputation of another, or which tends to bring him into disrepute. Oral defamation is called slander, while printed defamation is called libel. The purpose of libel and slander laws is to protect innocent individuals from the harmful effects of false, disparaging remarks about their reputation or their professional abilities. The defamatory statement must also be published, that is, it must be made to someone other than the person who is allegedly defamed. It should be pointed out that the truth is a defense to slander and libel. In other words, if you speak or write truthfully about a person, it is not slanderous or libelous, even if it is damaging to their reputation.

However, proving the truthfulness of a remark is not always easy. Objective evidence, such as a criminal conviction or a sanction by a licensing board, is a good way to prove the truthfulness of a remark. Look back at the statements made by Pat. How many of those statements are factual and objectively true? Maybe only the last one. But how is Pat going to prove it? In a law suit, Pat will have to list the names of the customers whose prescriptions were declined at the pharmacy. The store will have to list them as witnesses and then possibly call those persons as witnesses at a trial. Pat will have to articulate a reason why the prescriptions were not filled. Pat will also have to have an expert witness to state that this is the standard and practice of a pharmacist. It would aid in his Pat's defense if other pharmacies in the area were not filling Dr. White's prescriptions for the same reason.

Without objective evidence for the court to act upon, the question of truthfulness goes to the jury. If the jury decides

that the statements were truthful, then Pat wins. If not, then the jury decides if they were defamatory. If they were, then the jury decides the amount of damages to award Dr. White. By the time that Pat gets this far into the litigation process, Pat will have invested a significant amount of time and money.

Could Pat obtain insurance coverage to protect against these types of situations? Generally yes. Many commercial policies contain coverage for personal injury and one of the covered injuries under personal injury is typically slander or libel. Care must be taken, however, because certain exclusions will apply. One common exclusion is for personal injury arising from publication of statements that the insured knew were false when they were made. Personal injury arising from a criminal act committed by the insured is also excluded under many policies. Insurance coverage won't protect someone who intentionally defames another.

What is the best course of action for Pat? The best recommendation is to think before speaking. Know your audience. Know your content. Is it factual or inflammatory? "Mrs. Green, I'm not going to fill these prescriptions because, in my professional judgment, I believe that they may be detrimental to your health." This statement is certainly less inflammatory and may not be actionable at all. But do not let fear prevent you from intervening. Pharmacists still need to ensure that patients are receiving safe, effective drug therapy. In this last example, Pat has still performed the valuable DUR and gate keeping functions without defaming Dr. White's ability to practice medicine.

1Barron's Law Dictionary, Second Edition, Edited by Steven H. Gifis, Barron's Educational Series, Inc., 1984.

Don R. McGuire Jr., R.Ph., J.D., is General Counsel at Pharmacists Mutual Insurance Company.

This article discusses general principles of law and risk management. It is not intended as legal advice. Pharmacists should consult their own attorneys and insurance companies for specific advice. Pharmacists should be familiar with policies and procedures of their employers and insurance companies, and act accordingly.

FINANCIAL FORUM

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Planning For Retirement In Stages

While summer vacations and national holidays typically provide a break for everyone who would be considered a member of the working public, there is one big break ahead that's a priority on most everyone's calendar — retirement. And while it may be closer for some than it is for others, everyone needs to make sure they are financially prepared when the time comes to take a permanent leave from the ranks of the employed. Personal circumstances make planning for retirement different for each individual, but there are several considerations that apply if you break it down by the amount of time you have left until you retire.

If you have at least ten years to go until you plan on retiring, you still have the advantage of time on your side. One of the most basic principles of investing is putting your money into different investment vehicles and then leaving it there so you can reap the benefits of long-term returns. With more than ten years to invest, you might be able to afford to take on a little bit more risk with your investments. While equities – such as stocks – have an inherent risk of losing money, they also have a history of providing significant returns over a long period of time. Just keep in mind that past performance is no guarantee of future results.

Probably the biggest advantage of getting an early start is the benefit of compounding earnings. Based on the investments in your retirement portfolio, the money you put in has the potential to earn more money for you – whether through interest payments, dividends, or other means of growth. In many cases, those earnings can be reinvested into your portfolio, further enhancing the total value of your savings and allowing your money the opportunity to "make money" for you.

If your retirement is less than ten years away, then it's time to start making subtle adjustments to your investment mix. Hopefully, at this point you're not just getting started, but rather taking a look at how your investments are allocated and making sure they appropriately match your risk tolerance, your investment objectives and your relatively short time horizon. Because you have less time to work with, you still want to have some investments that offer growth, but you also want to begin looking at preservation of principal through fixed income alternatives such as bonds, which may provide a little more stability in your portfolio and help reduce your overall risk.

Finally, at some point you'll reach that day that you once thought was so far off. When you find yourself officially in the position to retire, you will have a whole different outlook on those funds you have set aside for just that purpose. Instead of making contributions to your retirement funds to help them grow, you'll be looking to maintain income from those investments. You'll likely begin taking distributions from them to pay for your day-to-day expenses. A thorough review of your investments will help you clearly see just how much you have saved, and how you will have to plan your distributions so you don't run short on funds during your retirement.

Financial preparation for retirement is something that is different for every individual. To make sure that you're on the right track, take the time now to assess your own situation and see what you can do to make sure you're ready when it's time for you to retire.

Provided by courtesy of Pat Reding, CFP™ of Pro Advantage Services Inc., in Algona, Iowa. For more information, please call Pat Reding at 1-800-288-6669.

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SOUTH DAKOTA'S PHARMACY'S FALLEN

Dennis B. Worthen, PhD Lloyd Scholar Cincinnati, OH

At least 8 pharmacists and student pharmacists with a connection to South Dakota State College (SDSC) Division of Pharmacy* served in the military during World War II and died in uniform. Six came from the farms and prairie towns of South Dakota; two classmates came from Minnesota and Missouri. The oldest graduated in 1938; the youngest left school just months after he started. Seven of the 8 enlisted in the Army and, at that time its branch, the Army Air Forces; the eighth man was a Marine. Each became an officer in a combat assignment. Six died in combat and two in aircraft crashes in the States. The first died in 1943, the last in 1945 after V-E Day. All were young: the oldest was born in 1917, the youngest in 1922. None returned to the profession they prepared for on the Brooking campus under the beloved landmark, the Coughlin Campanile.

Lon Fisher Brown was born in Belle Fourche, SD the middle child of William J. and Lily Brown in 1917. He graduated from Belle Fourche High School in 1935 and enrolled in the Division of Pharmacy, graduat-*Missing in Pacific* ing in 1939. He worked as a pharmacist at the Belle Drug Company in Belle Fourche



Capt. Lon F. Brown AAF SDSC 1939 02/06/1944

ing in 1939. He worked as a pharmacist at the Belle Drug Company in Belle Fourche for a year before enlisting in the U.S. Army in October 1940. He completed pilot training at Kelly Field, TX receiving his wings and commission as a 2nd Lt in June 1941. Lon Brown married Ramelle Chester of Salinas, CA and the couple had a son, Ross, before Brown deployed to the Pacific with the rank of Captain.

Captain Brown was assigned to the 17th Reconnaissance Squadron, part of the 5th Air Force in New Guinea. On February 6, 1944 he was the pilot of a B-25 on a routine reconnaissance flight in the West Bismarck Sea. The bombers sighted a concentration of Japanese barges loaded with supplies and began a bombing and strafing run. The plane piloted by Captain Brown received numerous anti-aircraft hits and crashed into the sea with its crew of 6; his remains were not recovered. His name is entered on the Tablets of the Missing at the Manila American Cemetery and there is a memorial in the Black Hills National Cemetery. Brown received the Air Medal and the Purple Heart.

Robert James Dibble was born in Pipestone, MN in 1922, one of four sons of Herbert L. and Sarah Dibble. He graduated from Pipestone High School in 1940 and with classmate Laurence Sendelbach enrolled in



2nd Lt Roger James Dibble, AAF SDSC Student Killed in crash 11/04/1945

Pipestone High School in 1940 and with classmate Laurence Sendelbach enrolled in the Division of Pharmacy at SDSC. He left school before he graduated, enlisting in the Army in April 1943. He received his flight training and was commissioned a 2nd Lt before being sent to the European Theater in October 1944.

Lt. Dibble was assigned to the 9th Air Force and was credited with flying 23 missions in France, Belgium, Holland, and Germany. May 8, 1945 was V-E Day but Dibble was still flying in Europe, part of the 516th Troop Carrier. On November 4, 1945 Dibble was the co-pilot on a C-47 (military version of the venerable DC-3) carrying 13 passengers from Bovingdon, England to Munich, Germany. Weather over Germany

* Now the South Dakota State University College of Pharmacy

SOUTH DAKOTA'S PHARMACY'S FALLEN

deteriorated and the flight crashed near Schlatt with all aboard killed. He was buried in the Lorraine American Cemetery at St. Avold, France. Dibble received the European Theater Ribbon with three stars and the Air Medal with two clusters.

Ronald Lee Helder was born in Carson, ND in 1917 to Floyd and Ann Helder. After his father's death when he was three his mother moved him and an older sister to Montrose where she was a teacher in the



2nd Lt Ronald Lee Helder AAF SDSC 1940 Killed in Action 08/01/1943

local schools. Ronald Helder graduated from Montrose High School as valedictorian in 1935. He entered the Division of Pharmacy and graduated in 1940. While in college he worked for the Power City Drug Company in Sioux Falls and went to work as a pharmacist after graduation. He enlisted in the Army in July 1940 and was assigned to a medical detachment. After Pearl Harbor he transferred to the Army Air Forces. He graduated from flying school as a pilot and was commissioned a 2nd Lt. on March 9, 1943.

Lt. Helder was assigned to the 564th Bomber Squadron as a B-24 Liberator co-pilot. In July 1943 Helder described the crew as one of the best in the squadron having completed 4 bombing raids and shooting down 4 enemy aircraft. In what was one of the largest bombing raids up to that point in the European theater, 178 bombers left the airfields in Benghazi, Libya to attack the Romanian oil fields at Ploesti as part

of Operation Tidal Wave on August 1, 1943. The refinery area was heavily protected by German fighters and anti-aircraft batteries; the operation was at a low level, with planes flying only a few feet higher than the tallest chimneys. The plane, Ole Kickapoo, was crewed by 10 men; Lloyd "Pete" Hughes was the pilot and Helder the co-pilot. An eye witness later recounted the performance of the men aboard Ole Kickapoo. Gas was streaming from the left wing tank after the plane was hit by ground fire. Flames from earlier bomb blasts were shooting higher than the bombing altitude. In spite of the danger the plane flew through the flames, caught fire, but maintained its height and laid its bombs directly on target. When the plane crashed 8 of the crew were killed. Pete Hughes was awarded the Congressional Medal of Honor; Helder received the Distinguished Flying Cross and the Purple Heart. After the war the remains of Lt. Helder were returned to the United States and placed in a common grave with 4 others at the Ft. McPherson National Cemetery in Nebraska.

Robert Franklin Holcomb was born in Langford, SD in 1917; his parents divorced and his mother later married Vere Farrar, a pharmacist in Aberdeen. Holcomb graduated from high school in 1934. Robert



1st Lt. Robert Franklin Holcomb AAF SDSC 1938 Killed in crash 03/19/1945

Holcomb graduated from SDSC with a BS in pharmacy in 1938 and moved to Cleveland where he worked for the Standard Drug Company. He married Harriet Nelson and later returned to Aberdeen where he worked with his step-father at Woodward Drug, a Rexall Agency store. In the spring of 1942 he enlisted in the United States Army and was assigned to pilot training in Texas. He received his wings and commission as a 2nd Lt. in October 1943.

Robert Holcomb was assigned to fly B-26 Marauders in the Mediterranean as part of the 437th Bomb Squadron. His bombing missions included rail yards and other strategic points in Italy and Southern France. His squadron flew close support missions over the Anzio beachhead and received recognized for "spectacularly accurate bombing of the Rome and Florence rail yards." In October 1944, at the completion of 63

South Dakota's Pharmacy's Fallen

combat missions he was ordered back to the States. He was assigned as a flight instructor at the advanced training center, La Junta Army Air Field near Rocky Ford, CO. On March 19, 1945 he was the instructor on a B-25 practicing night landings and take offs when another B-25 failed to follow procedures and crashed into Lt. Holcomb's plane killing him and 4 others. He is buried in Brookings. 1st Lt Holcomb received the Air Medal with 11 clusters; his group won the Distinguished Unit Badge with oak leaf clusters and the French Croix de Guerre with Palm.

Harrison Phillips Klusmeier was born in LaGrange, MO on September 1, 1919, the son of Harrison and Oma B. (Phillips) Klusmeier. He was a 1942 graduate of South Dakota State.

Almost no information has been discovered on the service of 1st Lt Klusmeier. He was a U.S. Marine believed to have been killed in action on May 15, 1945, probably in the Battle of Okinawa. His name is entered on the Lewis County Veterans Memorial in Monticello, MO.

Robert E. Knorr was born in Alberta, Canada the only child of Herman and Lilly Knorr in 1917. When he was 17 he moved to Marion to live with his aunt and uncle, Otto J. and Martha Knorr. Otto was a pharmacist in Marion. Robert graduated from the Marion High School in 1936 and enrolled in the Division of Pharmacy. He graduated in June 1941 and was registered by the South Dakota State Board that summer.

Robert Knorr entered the Army in June 1942 and was commissioned as a 2nd Lt. He was assigned to the 132nd Infantry Regiment of the Americal Division. On April 26 Knorr was leading his platoon in the landing on Cebu Island, the Philippines. As the group advanced into the jungle they encountered a much larger group of Japanese soldiers who attempted to surround the Americans. In the ensuing fighting Knorr exposed himself repeatedly to gauge the enemy's movements. Lt. Knorr was buried in the Manila American Cemetery. His leadership and bravery earned him the Purple Heart and Silver Star—posthumously.

Burton Glen Tousley was born at Gettysburg, SD in 1918, the middle child of Albert and Ellis Tousley. He graduated from Gettysburg High School and entered South Dakota State. While in pharmacy school he was involved in numerous student activities ranging from a cadet officer in the ROTC, the national military society Scabbard and Blade, and president of the student pharmaceutical association (today's Academy of Student Pharmacists). Chuck Cecil chronicled his climb to the top of the Campanile in The Sky's the Limit.

Burton Tousley enlisted in the Army at Fort Snelling in April, 1943 and was assigned to the Armored School in Fort Knox, KY. He excelled in the course and received his commission and further training in Texas and Louisiana. In 1944 he married Alyce Robinson and within weeks was on his way to England arriving in October. He was assigned to 41st Cavalry Reconnaissance Squadron, part of the 11th Armored Division. When Germany made its last major offensive push at the Battle of the Bulge, the 11th was part of Patton's Third Army that rushed to prevent the German advance. At the end of the battle, the 11th was in the lead toward the Rhine River to seize vital bridge crossings before the Germans could destroy them. On March 18, 1945 Burton Tousley was killed when his jeep hit a land mine. Temporarily buried in Luxembourg, Tousley's body was returned to the United States and was among the first buried in the new Black Hills National Cemetery.

James Harold Vogel was born in Graceville Village, MN in 1919, the son of Frank V. and Hazel Vogel. The family moved first to Huron, SD and then to Pierre where he graduated from high school. He entered

South Dakota's Pharmacy's Fallen

South Dakota State but left school to enlist in the Army Air Forces in July 1942. Vogel was commissioned as a 2nd Lt. and assigned as a navigator on a bomber. In 1943 he married Doris Margaret Timm.

On October 29, 1944 a B-24 with Vogel aboard as the navigator took off from Chatham Field (Savannah), Georgia on a routine flight. The plane quickly developed engine trouble with one propeller feathered and a second engine trailing smoke. The plane turned to land but crashed in the attempt killing all aboard.

Conclusions

Many South Dakota pharmacists and student pharmacists answered the call and served in the military during World War II. According to one source 119 pharmacists served but no record of the number of pharmacy students who served in the military has been located. Similarly, 111 graduates of SDSC died while on active duty but the names of the students who left SDSC who perished are unknown. However, the names of 8 pharmacists and student pharmacists are known; their stories deserve to be preserved as part of the greatest generation.

Special Note: In looking for the stories of the South Dakota fallen I encountered a teacher in Spearfish, Sheila Hansen. Inspired by the sacrifices of the conflict she assigned her 8th grade students a research and writing project to document the Fallen Sons and Daughters of South Dakota. Her project gained the attention of then-Governor William Janklow who sponsored the expansion of the project state-wide. The students did an admirable job of honoring the fallen; their work and that of Ms. Hansen can be found at http://mva.sd.gov/sdwwiimemorial/. The project has continued to document the lives of those who fell in Korea and Vietnam. As a personal note, I wish everyone could have a teacher like Sheila Hansen.

Note: If you have any information about these 8 or any other pharmacists or student pharmacist who died in active service during World War II please contact Dennis Worthen at dbworthen@fuse.net.



Continuing Education for Pharmacists

Natural Products: Cascara to Centaury

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and

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Goals. The goals of this lesson are to present information on the claims, mechanisms of action, typical dosages used and other items of interest on natural products and nutraceuticals alphabetically from cascara to centaury, and to provide background information for assisting others on their proper selection and use.

Objectives. At the conclusion of this lesson, successful participants should be able to:

 identify claims, mechanisms of action, and typical dosages for natural products and nutraceuticals presented;

select from a list, the synonyms for these products; and

describe popular uses of the products discussed.

This lesson is part of a series that presents an overview of the common uses, proposed mechanisms of action, typical dosage regimens and



other information of interest on natural products and nutraceuticals. Products reviewed in this article are listed in Table 1.

The paramount difference between drugs and natural products was explained in the first lesson in this series. However, since natural products are a controversial topic for some people, the authors restate that the information presented is neither a promotion of nor a condemnation against their use. It is merely an overview of what has been reported in both the public and scientific literature, and certainly not an in-depth treatise. Additional sources (websites) of information on natural products are provided in Table 2. Some of these websites require subscription.

Cascara (*Rhamnus purshiana*), also known as bitter bark, California buckthorn, cascara sagrada, chittem bark, dogwood bark, purshiana bark, sacred bark, sagrada bark and yellow bark, is the dried bark of rhamnus trees, which are indigenous to the western part of North America. It is cultivated in California, Oregon, Washington, Idaho, Montana and British Columbia, as well as the Pacific coast area of Asia.

Cascara is approved by the FDA as a safe and effective nonprescrip-

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tion laxative drug. However, in folk medicine it has been used to treat gallstones, hemorrhoids, and liver problems; and used as a bitter tonic. In homeopathic medicine, the herb is used for rheumatism and as a digestant.

It is of interest to note that the fresh bark of rhamnus trees contains a component that is actually an emetic. Therefore, for medicinal use, the bark must be aged for at least a year or artificially aged with heat and aeration to convert this component into inactive anthra-glycosides.

Following ingestion, intestinal bacteria convert these anthraglycosides into cascara's active principles, cascarosides A and B. These stimulate peristalsis and evacuation resulting in a laxative effect.

It has been found that cascarosides A and B produce an active secretion of water and electrolytes into the small intestine and inhibit their reabsorption from the colon. The resulting increased volume of colonic contents initiates evacuation in six to 12 hours.

When properly used, cascara is considered to be a safe laxative with few adverse effects, such as mild abdominal discomfort and cramps.

Table 1 Natural Products Covered in this Lesson

Cascara Castor Oil Cat's Claw Catnip Celery Centaury

Table 2 Representative Sources for Information on Natural Products	
American Botanical Council	www.herbalgram.org
Facts and Comparisons	www.factsandcomparisons.com
Food and Drug Administration	www.fda.gov (click on Food)
National Center for Complementary and Alternative Medicine of the National Institutes of Health	www.nccam.nih.gov
PDR for Herbal Remedies	0
PDR for Nutritional Supplements	www.pdr.net
Pharmacist's Letter	www.naturaldatabase.com

However, continued and chronic use can lead to laxative dependence and electrolyte loss, especially potassium.

From the nonprescription drug standpoint, labeling of a cascaracontaining laxative must warn consumers not to use the product longer than one week or when abdominal pain, nausea or vomiting are present, unless advised otherwise by a physician. Cascara, like all laxatives, has the following warning in its labeling: "If you have sudden changes in bowel habits that persist over a period of two weeks, consult a doctor before using a laxative."

Additionally, consumers must be warned that rectal bleeding or failure to have a bowel movement after the use of a laxative may indicate a serious condition. If these occur, discontinue use and consult a doctor.

As an herbal remedy, the typical dose of cascara is 20 to 30 mg of the standardized active ingredient cascaroside A, obtained from the cut dried bark, powder or extract. Another typical dose involves drinking a cup of tea made by steeping 2 grams of finely chopped bark in 150 mL of water for five to 10 minutes and then straining the tea before ingestion. Cascara liquid extract is dosed at 2 to 5 mL.

Analogous to the FDA's required warning on the labeling of OTC laxatives containing cascara, the American Herbal Products Association recommends that labels of cascara herbal products contain a similar warning. The statement is: "Do not use this product if you have abdominal pain or diarrhea. Discontinue use in the event of diarrhea or watery stools. Do not exceed recommended dose. Not for long term use."

Castor Oil (*Ricinus communis, R. sanguines*), also known as African coffee tree, bofareira, castor bean, Mexico weed, palma christi, tangantangan oil plant and wonder tree, is derived from a flower-bearing plant that grows as a shrub in southern areas of the northern hemisphere. In tropical areas, it grows as a tree up to 40 feet high.

The plant's name "ricinus" is derived from the Latin word for insect, because the seeds contained in its flowers look like beetles in both shape and markings. Castor beans have been used for thousands of years as ornaments and art objects.

Early Egyptians reportedly used castor oil for application to the skin as a softener, and ingested it with beer as a purgative. They also used it as a lamp oil. Through the years, people have used castor oil as an emollient and to soften corns and bunions.

Castor oil has also been used topically as a cervical abortifacient and vaginal contraceptive. It has been given orally, mixed with quinine to induce labor at term.

Today, castor oil is FDAapproved as a safe and effective nonprescription laxative drug when used appropriately short term. OTC castor oil-containing products must be labeled with the same warnings listed above for cascara. Castor oil is most effective when taken on an empty stomach and produces a laxative effect in about eight hours.

Although it is an ingredient in topical emollient products, there is a lack of evidence that castor oil provides definitive therapeutic effects. Therefore, it is considered to be an inactive ingredient in pharmaceutical products for external use.

After ingestion, castor oil is hydrolyzed in the duodenum to release ricinoleic acid, which increases secretion of water and electrolytes into the small intestine. Some refer to the laxative effect of castor oil as being small intestine diarrhea which flushes the bowel contents out of the colon.

Even though castor oil has been used for a long time, it does have the potential for producing potent adverse effects. It can cause burning of the mouth and throat, severe stomach pain, nausea, vomiting, hemorrhagic gastroenteritis, convulsions and even death.

Ricin, one of the constituents of castor oil, binds with normal cells and disrupts DNA synthesis resulting in cell death. Ricin is one of the most potent plant-derived toxins known, and has been studied as a possible chemical warfare agent.

In spite of the above information, no health hazards or adverse reactions are known to have occurred with the proper, shortterm use of approved doses of castor oil. It is, however, contraindicated in patients with intestinal obstruction, acute inflammatory intestinal diseases, appendicitis, abdominal pain of unknown origin, during pregnancy or while nursing, and in children under two years of age. The commonly recommended adult dose of castor oil is 5 to 10 grams (one to two teaspoonsful) up to a maximum of 30 grams (six teaspoonsful) in any one day.

Cat's Claw (*Uncaria guianensis*, *U. tomentosa*), also known as garbato, griffe du chat, life-giving vine of Peru, samento, tambor huasca and uña de gato, is a highclimbing vine indigenous to Asia and South America. Its name is derived from small curved-back spines that grow on the stem at the juncture with its leaves.

There are 34 reported species of Uncaria around the world such as gambir and pole catechu. This section will review the two species listed in the heading for this section, which are found in South America, especially Peru.

As una de gato, this herb has been used in South America for centuries as a wound healer, as an anti-inflammatory, antirheumatic and contraceptive, and for treating gastric ulcers, gonorrhea and dysentery. Some Peruvian Indian tribes believe that samento has "lifegiving" properties and drink a concoction each week or two to ward off disease, treat bone pain and cleanse their kidneys.

In this country, cat's claw is a folk remedy for treating asthma, diarrhea, diverticulitis, gastritis, hemorrhoids, parasites, peptic ulcers and bowel incontinence. Topically, it is used for treating wounds. Currently, cat's claw is being studied in clinical trials in combination with zidovudine for treating patients with HIV infection.

Several alkaloids with potential pharmacologic effects have been extracted from the root and bark of cat's claw. These are claimed to exert effects including immune system stimulation, blood vessel dilation, platelet aggregation inhibition, sympathetic nervous system inhibition, lowered heart rate, lowered blood cholesterol, and inhibition of diuresis and bladder contraction. Cat's claw is reported to produce local anesthesia at low doses with curare-like action at high doses. Several glycoside components are reported to have antiviral and antiinflammatory activity.

Studies are on-going to determine if cat's claw can play a role in improving immunity in cancer patients or has antimutagenic properties. To date, there is a lack of scientific documentation of therapeutic benefit from cat's claw or its components. Nonetheless, it remains as one of the 10 most popular herbs in sales in the U.S.

Since the active constituents of cat's claw can vary greatly depending on what species it is, where it is grown and what time of year it is harvested, herbalists recommend that people should only use products standardized to 4 percent alkaloids.

Other than occasional diarrhea with excessive dosages, there is little published information that cat's claw is hazardous or toxic at recommended doses.

A typical dose for cat's claw is 500 mg to 1 gram of raw herb (commercially available in tablets and capsules), one to three times a day. A tea is also prepared by simmering one gram of root bark in 150 mL of boiling water for five to 10 minutes and then straining. This is typically ingested three times a day.

Catnip (*Nepeta cataria*), also known as catmint, catnep, catswort and field balm is native to Eurasia, but is now cultivated throughout the northeastern U.S. and Canada.

Historically, catnip has been used to promote urination, open lung obstructions and expel worms; to treat colds, nervous conditions, stomach ailments, hives; and in girls to initiate menses when they have delayed onset of menstruation. Catnip has been applied topically to reduce swelling. The dried leaves have been smoked to relieve respiratory ailments. Catnip has a characteristic aromatic scent, similar to mint. It is widely recognized for having the ability to elicit "euphoria" in cats. In the 1960s, as an extension of its effects on cats, it was smoked by humans as a hallucinogen.

In folk medicine today, especially in Appalachia, catnip is used for treating colds, flu, fever, hives, insomnia and migraine headache, and to treat gastrointestinal upset, indigestion, cramping and flatulence. It is also used as a tonic, for anxiety and upper respiratory tract infection. Topically, catnip is applied to relieve arthritic pain.

The portion of catnip used in folk medicine is its flowering tips. A constituent thereof, nepetalactone, is claimed to provide catnip's beneficial effects. Nepetalactone is structurally related to the chemicals found in valerian, which have been shown to provide calming effects for people with anxiety, gastrointestinal ailments, insomnia and migraine headaches. However, confirming scientific proof of therapeutic activity in humans has not yet been achieved.

No major side effects have been associated with catnip ingestion when administered properly in the correct doses. The typical dose for catnip is two 380 mg capsules three times daily at mealtime. Alternately, a tea is prepared by boiling catnip powder in 150 mL of water for five to 10 minutes and then straining the resulting solution. This is ingested three times a day with meals.

Celery (*Apium graveolens*), also known as Apii fructus, celery fruit, celery seed and smallage, is a biennial plant native to Europe.

Now grown worldwide, a number of varieties have been developed to meet commercial demands for various colors, stalk sizes and tastes. In the Northern Hemisphere, white flowers bloom on the plant during early to midsummer. These are the source of celery seeds.

Historically, celery reportedly originated as a wild plant in the salt marshes around the Mediterranean Sea. Early Greeks (about 400 B.C.) used it to make a wine called selinites and used the plant as an athletic award, much like laurel leaves and olive branches are used today. Europeans cultivated celery as a fruit and medicine by the Middle Ages.

During the era of patent medicines in the late 1800s, celery tonics and elixirs containing the juice of crushed celery seeds were being sold. As with many other remedies of that era, these often contained a significant amount of alcohol, which was a major selling point.

In today's folk medicine, celery is used to treat exhaustion, gout, headache, hysteria, nervousness, rheumatism, and endorsed for loss of appetite as well as an appetite suppressant. It is also used as an antiflatulent, aphrodisiac, blood purifier, digestive aid, diuretic, laxative, menstrual stimulant, sedative, urinary antiseptic and to reduce lactation. In homeopathic medicine, celery is used for ailments of the ovaries and for rheumatism.

While there is a lack of scientific proof of therapeutic activity for celery, it does contain chemicals that may provide antispasmodic, diuretic and sedative effects. Preliminary research has suggested antiarthritic effects, but it has no proven anti-inflammatory or fever reducing activity.

One of the constituents of celery seed has been reported to exert antiplatelet, and therefore anticoagulant activity. Celery seed reportedly has produced bacteriostatic effects, and its juice has been claimed to show bile stimulating effects.

Nutritionally, celery is a good source of calcium, iron and magnesium.

No major adverse effects have been linked to celery; contact dermatitis and hypersensitivity reactions have been reported. There may be a cross-sensitivity with celery to carrots and dandelion. The typical dose of celery is 0.5 to 2 grams of dried fruit three times a day, or one cup of tea prepared by simmering 1 gram of fresh, crushed dried fruit in 150 ml of boiling water for five to 10 minutes. The resulting solution is strained and ingested three times a day. The dose of the liquid extract (1:1 in 60 percent alcohol) is 0.3 to 1.2 mL three times a day.

Centaury (*Centaurium erythraea*, *C. minus*, *C. umbellatum*, *Erythraea centaurium*), also known as bitter herb, bitterbloom, bitter clover, Christ's ladder, centaury gentian, common centaury, drug centaurium, eyebright, feverwort, filwort, lesser centaury, minor centaury, red centaury, rose pink and wild succory, is related to approximately 40 annual and biennial plant species. These vary in composition depending on the geographic area in which they are grown.

The type used in folk medicine is a small, annual herb that is native to Europe, but was naturalized to the U.S. beginning in colonial days. It thrives in both wet and dry climates. The entire herb is used for medicinal purposes. Centaury root is fibrous and woody, the leaves are pale green and the flowers are pink to red.

Long used for medicinal purposes, centaury was described by Hippocrates. Greek legend has it that Chiron (who early Greeks considered to be the founder of medicine) used it to heal a wound inflicted by a poisoned arrow.

Historical accounts dating from 10th century Europe mention the usefulness of centaury. The plant was described as bitter, but safe, for use in killing worms and treating dropsy (edema of heart failure). Externally, it was used for snakebite and other wounds. Records of herbalists in Saxony report its use to treat fever.

Through the ages, centaury has also been used for treating loss of appetite and gastrointestinal complaints such as dyspepsia, bloating and flatulence. The activity of centaury for these uses has been related to its bitter constituents, which can stimulate appetite as well as increase gastric secretion and salivation.

There is a lack of scientific proof, but claims are made that the phenolic acid constituents of centaury may bring about reduction of fever. Claims are also made that centaury has anti-inflammatory activity, which contributes to wound healing.

The typical dose of centaury is 2 to 4 grams. A tea can be prepared by steeping this amount in 150 mL of boiling water for five to 10 minutes and then straining. The resultant solution is ingested three times a day. The usual dose for the liquid extract (prepared in 1:1 ratio with 25 percent alcohol) is 2 to 4 mL three times a day.

Continuing Education Quiz "Natural Products: Cascara to Centaury"

1. Cascara is known by all the following EXCEPT:a. bitter bark.c. persian bark.b. dogwood bark.d. sacred bark.

2. All of the following statements about the active principles of cascara are true EXCEPT:

- a. they are anthraglycosides.
- b. they produce active secretion of water and electrolytes into the small intestine.
- c. they inhibit the reabsorption of water and electrolytes from the colon.
- d. they soften stools to allow for their easier passage.

3. Labeling of OTC cascara-containing laxatives must warn consumers about all of the following EXCEPT:

a. do not take longer than one week.

- b. do not drink grapefruit juice while taking this product.
- c. do not use when abdominal pain, nausea or vomiting are present.
- d. if sudden changes in bowel movements persist longer than two weeks, consult your doctor before using any laxatives.

4. Which of the following natural products are approved by FDA as safe and effective nonprescription drugs?

a. Cascara and castor oil	c. Castor oil and cat's claw
b. Cascara and catnip	d. Castor oil and centaury

5. The constituent of castor oil that binds with normal cells and disrupts DNA synthesis resulting in cell death is:

a. dioxin.	c. ricin.
b. podophyllin.	d. sennosides

6. Cat's claw is claimed to be useful as a folk remedy for treating all of the following EXCEPT:

a. asthma.	c. hemorrhoids.
b. diarrhea.	d. infertility.

7. A typical dose for cat's claw as a raw herb is:

a. 250 mg.	c. 2.5 grams.
b. 500 mg.	d. 5 grams.

8. Nepetalactone, a constituent of catnip, is structurally related to chemicals in:

a. valerian.	c. milk.
b. cat's claw.	d. dogwood.

9. In today's folk medicine, celery is used for all of the following EXCEPT:

a. as a digestive aid.

b. to relieve headache.

- c. as a urinary antiseptic.
- d. to stimulate lactation.

10. Centaury is also known by all of the following synonyms EXCEPT:

a. bitter clover.	c. palma christi.
b. eyebright.	d. wild succory.

This course expires on: May 1, 2013 Target audience: Pharmacists and Pharmacy Technicians



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To receive 1.5 Contact Hours (0.15 CEUs of continuing education credit, read the attached article and answer the 10 questions by circling the appropriate letter on the answer form below. A test score of 70% or better is required to earn a Statement of Credit for 1.5 Contact Hours (0.15 CEUs) of continuing pharmacy education credit. If a score of 70% is not achieved on the first attempt, another answer sheet will be sent for one retest at no additional charge.

Learning Objectives - Pharmacists: 1. Identify claims, mechanisms of action, and typical dosages for Cascara, Castor Oil, Cat's claw, Catnip, Celery, Centaury; 2. Select from a list, the synonyms for these products; 3. Describe popular uses of the products discussed.

Learning Objectives – Technicians: 1. Identify the popular uses of Cascara, Castor Oil, Cat's claw, Catnip, Celery, Centaury; 2. Identify the warnings that must be present on Cascara-containing laxatives; 3. Identify the constituent of Castor Oil that disrupts DNA synthesis – and leads to cell death; 4. Select the maximum dose / day for Castor Oil; 5. Describe the folk medicine uses for celery.

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"Natural Products: Cascara to Centaury"
(Knowledge-based CPE)
Circle the correct answer below: 1. A B C D 6. A B C D 2. A B C D 7. A B C D 3. A B C D 8. A B C D 4. A B C D 9. A B C D 5. A B C D 10. A B C D
Course Evaluation – must be completed for credit.
<i>1=Disagree - 7=Agree</i> Material was effectively organized for learning: 1 2 3 4 5 6 5
Content was applicable / useful in practice 1 2 3 4 5 6 7
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Learning assessment questions were appropriate:1 2 3 4 5 6
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Tidbits To Ponder

• We all know that medicines don't work when people don't take them. If we examine the causes of poor patient health, or even hospitalizations, often times it's due to the improper use of medications. The costs to our nation's health care system due to medication non-adherence are estimated to be over \$290 billion dollars. We also know that pharmacists can play a vital role in medication adherence, in fact, pharmacists are uniquely qualified to fulfill that role. Find one new patient each day to talk to and educate about their medications.

New England Healthcare Institute Research Brief. Thinking Outside the Pillbox: A System-wide approach to Improving Patient Medication Adherence for ChronicDisease 2009. www. nehi.net/uploads/full_report/pa_issue_brief_final.pdf. Accessed May 1, 2010.

• Poor medication adherence costs this nation \$290 billion dollars representing 13% of the total health-care spend in this country. Find one new patient each day to talk to about their medications.

New England Healthcare Institute Research Brief. Thinking Outside the Pillbox: A System-wide approach to Improving Pa-



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tient Medication Adherence for ChronicDisease 2009. www. nehi.net/uploads/full_report/pa_issue_brief_final.pdf. Accessed May 1, 2010.

• Improper medication use costs our nation an estimated \$290 billion annually in total direct and indirect health care costs. Pharmacists need to educate patients on medication adherence.

New England Healthcare Institute Research Brief. Thinking Outside the Pillbox: A System-wide approach to Improving Patient Medication Adherence for ChronicDisease 2009. www. nehi.net/uploads/full_report/pa_issue_brief_final.pdf. Accessed May 1, 2010.

• According to one study, people aged 75 years and older take an average of 7.9 drugs per day. Assure your patients understand the importance of being adherent by discussing their medications with them at each visit.

Marinker M, Blenkinsopp A, Bond C, et al. From Compliance to Concordance: Achieving Shared Goals in Medicine Taking. London, UK: Royal Pharmaceutical Society of Great Britain; 1997. South Dakota Pharmacists Association PO Box 518 Pierre, SD 57501-0518

