Dr. William Walter Retires
By Dr. Henry Fleming

Dr. William M. (Bill) Walter, USDA-ARS Professor of Food Science, announced his plans to retire effective January 3, 2000. Dr. Walter has been a member of our faculty since 1965 and has published about 150 scientific and technical papers. Most of his research has dealt with the chemistry, post-harvest handling and processing of sweet potatoes, a commodity that North Carolina ranks first in the nation in terms of production. Many consider him the most knowledgeable public servant in the United States in his area of research. He has also worked with vegetable products in general, and specific commodities such as cucumbers, tomatoes, olives and others.

Dr. Walter, a native of South Carolina, obtained his Ph.D. degree in organic chemistry from the University of Georgia (1963) and his BS degree in chemistry from the Citadel (1958). In the interim he served as Captain, U.S. Army Tropical Medical Research Laboratory in Fort Brooke, Puerto Rico, (1963-65), which perhaps encouraged his long-standing interest in mastering the Spanish language.

Bill and his wife, Kay, will continue to reside in the Raleigh area. They plan to travel internationally and within the U.S. Their son lives in California and Bill has two brothers and cousins in South Carolina. When asked why he chose to retire he said "I have worked long enough: I plan to be a househusband". Kay plans to continue working at the Governor Morehead School. But his planned activities indicate that he will only shift the location and direction of his activities. Bill and Kay have real estate interests in Raleigh and at the North Carolina and South Carolina coasts, which will require management. In his spare time, he will continue his hobbies of fishing and clay target shooting. And he anticipates finding time to hitch up his trousers and lend his services as a governmental critic. Bill says that he has enjoyed being in our department and will continue to visit and associate with his many friends in our department.

Food-Binding Techniques Make Way for "Jumbo" Portions
(Excerpt from The Bangor (Maine) Daily News)
By Randall Chase, AP

Using food-binding techniques, including one perfected with the help of North Carolina State University researchers, seafood processors are experimenting with new ways to dish up fish in larger portions. When it comes to seafood, size counts.

"It can bind the scallops without having to cook the scallop," said Tyre Lanier, a North Carolina State food scientist who worked with Wanchese Fish Co. of Wanchese, NC to perfect a binding process using fibrinogen, a protein extracted from beef plasma.

"We knew we had a winner when we first started," said Sam Daniels of Wanchese Fish Co. credited with being the first company in North America to market scallop medallions.

Wanchese officials approached North Carolina State researchers, who evaluated the relative merits of Fibrinex, a fibrinogen binder and microbial transglutaminase, or MTGase, a natural enzyme. The researchers settled on Fibrinex, a mixture of fibrinogen and the enzyme thrombin extracted from beef plasma.

Most restaurant patrons probably could not distinguish a formed scallop from a natural one, experts say. "You'd have to look pretty close," Lanier said noting that the orientation of the fibers is one telltale sign. "Think of a piece of wood versus a piece of chipboard," he said. "But what the heck, it's all scallops."

Editor's Note
These scallop medallions are made from small Argentine scallops that are small and sold as bay scallops. The people who bought these Argentine bay scallops said that they were the best tasting in the world but it was too bad that they were so small. By binding these small scallops together they produce a high-quality, uniformly sized scallop with the same sweet taste. When cooking they shrink less and are much less expensive too.
Faculty Notes

Dr. Lee Ann Jaykus was awarded this year's 1999 Research Award of the North Carolina State University's chapter of Sigma Xi. This award recognizes young scientists for superior accomplishments in the field of scientific research and the furtherance of the ideals and objectives of The Society of Sigma Xi. Lee Ann was recognized at the annual initiation banquet and dinner at the Talley Center in May.

Dr. John Rushing was selected to receive the Food and Drug Administration's (FDA) Group Recognition Award as a member of the National Conference on Interstate Milk Shipment (NCIMS) Training Team. Rushing provided invaluable assistance to the FDA and his accomplishments impacted the well being of the public. He was awarded in June. Congratulations Dr. Rushing!

Dr. Peggy Foegeding (retired) was selected as one of the IFT (Institute of Food Technologists) Food Microbiology Distinguished Service Award winners this year. She is certainly deserving of this award. Congratulations!

Dr. Harold Swaisgood served on the Scientific Advisory Committee for the 14th annual Brunner Protein Symposium held at Michigan State University in May. He also presented a seminar on the "Design of Recombinant Enzymes for Use in Bioreactors" at the University of Minnesota. In addition to these Dr. Swaisgood was elected President of the American Dairy Science Association "in appreciation for his devoted service, loyalty and accomplishment". He was also awarded the title of Fellow of the American Dairy Science Association in recognition of his "outstanding contributions to the dairy industry and the Association" We are so proud of Dr. Swaisgood!

Dr. Richard Theuer (adjunct professor) obtained an U.S. Patent (No. 6,051,235) in April for "Ginger-containing baby-food preparation and methods therefor". This was assigned to BeechNut. He also passed the Patent Bar Examination and will be a registered patent agent. Also, Dr. Theuer was an American Delegate at the 22nd Session of the Codex Alimentarius Commission Committee on Nutrition and Foods for Special Dietary Uses held in Berlin, Germany, June 19-23, 2000.

Allen Foegeding has another published journal article featured in American Chemical Society entitled "Functional Properties of Whey Proteins in Forming Network".

Todd Klaenhammer was lauded as a distinguished professional member of IFT (Institute of Food Technologists) having excelled in research and teaching and having shown visionary leadership in defining the national research agenda for food science and technology. Congratulations Dr. Klaenhammer.

Arthur Hansen has submitted three papers for publication in the Journal of Dairy Science this winter on the effects of various dairy packaging on shelf life, flavor and headspace of pasteurized and ultrapasteurized milk. The other co-authors are M. Simon and C. T. Young.

Dr. Jonathan Allen was quoted as a nutritional expert on a comparison between Krispy Kreme Doughnuts and bagels by BusinessWeek On-line, the Barker Portfolio.

Dr. Donn R. Ward, Professor and Associate Department Head has been appointed by Chancellor Marye Anne Fox to become the Faculty Athletic Representative (FAR), effective February 1, 2001. The duties of the FAR are to ensure the academic integrity of the intercollegiate athletics program, to facilitate institutional control of intercollegiate athletics, and to enhance the student-athlete experience. The FAR's on-campus duties include, but are not limited to: 1) chairing the Council on Athletics; 2) reviewing admissions documents of all entering student-athletes and certifying their initial eligibility; 3) participating in the review of the academic performance of continuing student athletes and certifying their continuing eligibility; 4) reviewing graduation rates of student-athletes, the academic performance of sports teams and advising the Chancellor, the Director of Athletics and the Faculty Senate concerning the academic performance of student-athletes and sports teams; 5) together with the Assistant Athletics Director for Compliance and the Compliance Committee of the Council maintaining oversight of compliance-related activities undertaken with the Department of Athletics and by the University; 6) promoting, together with the Council, a balance between academics, athletics, and the social lives of student-athletes thus affording them opportunities to enjoy the full range of collegiate experiences available to all students; 7) playing a central role in developing a dialogue between the faculty, the administration, and the Department of Athletics; 8) participating in searches for head coaches of all revenue sports.

The FAR plays a central role in discussions of matters related to intercollegiate athletics within the University's administration and, as an appointee of the Chancellor, is one of the Chancellor's key advisers concerning matters related to the intercollegiate athletic program.
In addition, the FAR is the Chancellor's designee to represent the University and its faculty in the institution’s relationship with the NCAA and ACC. The FAR also serves as liaison to the Atlantic Coast Conference and serves as the University’s voting representative to the Conference except in those matters reserved to the Chancellor by the Conference bylaws.

Staff Awards

Dr. Van-Den Truong won the "Best Paper Award" for the paper on phospholipids entitled "Rheological and Sensory properties of Reduced-Fat Processed Cheeses Containing Lecithin" in the Journal of Food Science. The Phospholipids Division of the American Oil Chemists Society at the Annual Meeting and Expo in San Diego in April presented this award. Congratulations Den!

Yewande A. Fasina who works in Dr. Swaisgood's lab was selected to receive an award in the Graduate Student Poster competition at the Poultry Science Association meeting in Montreal, Canada. Congratulations Yewande!

Department Says Goodbye to

Eric Adles has been with us for 3 1/2 years as our resident computer expert. He is leaving us to teach piano full-time and explore performing and composing opportunities. Good Luck Eric.

Ik Soon Kang has worked here for the past 4 1/2 years as a visiting scientist and post-doctoral fellow working for Dr. Tyre Lanier doing research on intact fish and surimi products. He has taken a job as a senior research scientist with Oscar Mayer/Kraft foods in Madison, Wisconsin. We will certainly miss him.

Kai Koo worked as a post doc in Dr. Jaykus’ lab for 2 years. During that time he developed several novel molecular biological methods targeting the detection of key foodborne pathogens. He and his new wife have taken industry positions in the San Francisco Bay area. Best wishes to the newlyweds.

Reshaun Smith was a dairy plant operator with us for 2 years. During this time he worked full time and went to school at ECPI too. He has graduated and taken a job at a local cable company as a computer expert. All the hard work paid off. Congratulations Reshaun.

Dr. William Walter retires the first week in January. Bill has been a major stone in the foundation of our department and has brought grace and style to all the activities he has been associated with here at NC State University. To say he will be missed is a gross understatement. Being the active researcher that he is it will take him considerable time to transition though the many and varied projects and ongoing activities. Please join me as we wish Bill the very best retirement has to offer!

Jennifer Johnson Black worked Under Dr. Allen for 1 1/2 years specializing in diabetes in the Cherokees. As a Registered Dietician she has taken a full time job at a local hospital and a part time job at a spa in Durham.

Dr. Duane Larick, professor, accepted a new position as Assistant Dean of the Graduate School in October. He continued responsibilities in Food Science until January. Dr. Larick has been with us for 14 years as a teacher and as the director of the NC State University Meat Processing Laboratory. His extensive research was related to the determination of the influence of processing on the flavor of food products, chemicals in food products responsible for acceptable and unacceptable flavor, and recovery of useful by-products from processing plant waste streams. He also developed a course that meets the needs of food science majors as well as those from Animal and Poultry Science including topics such as food safety and HACCP. Dr. Larick was the chairman of the Food Science Graduate Committee for seven years. We will really miss him.

Alumni News

Sharon Brogan ’96 graduated from the Culinary Institute of America in July 1999 and is now working as a chef at the Fairmont Country Club in Chatham, NJ.

Shu Li Wang MS ’99 had a beautiful baby girl named Kelly April in April.

Anna Reich, BS 96 is working for Yoh Scientific as their Scientific Account Executive in Research Triangle Park. She works in
information technology staffing, performing, recruiting and sales.

Meredith Regan Summerlin '96 graduated in May from LSU with a Juris Doctor degree and will be working for a law firm in Raleigh.

Nikki C. Drye MS '98 is currently living in Columbia, SC and working at Louis Rich Co. as an Operations Quality Supervisor.

Kelly Muljono BS '98 worked as a lab manager for Davisco Foods Intl. in Lake Norden SD for 1 1/2 years. Now she has moved to Chicago and is working for Irish Dairy Board, Inc. as a Technical Sales Executive in Wilmette, IL. She is getting married at the end of the year to Cheng Lim.

Welcome to Our New Employees

Dr. Sophia Kathariou is the new Food Microbiology Professor. She is filling Peggy Foegeding's position. She started in September. She came to us from the Dept. of Microbiology at the University of Hawaii. She specializes in molecular biology of bacterial food pathogens, bacterial genetics and pathogenesis, bacterial stress responses and low temperature adaptations, antibiotic production by bacteria from specialized habitats with a special interest in Listeria. She earned her BA in Biology from Austin College in Texas and her Ph.D in genetics at University of California, Berkeley. Aloha Dr. Kathariou!

Feng Zhao joined the team in June. She is a research associate post doc and will be working under Dr. Swaisgood and Dr. Catignani. She has transferred here from Dept. of Chemistry and is originally from China.

Bernard W. Eckhart started with us in June. He took Eric Adles' position as our computing consultant. He is recently from McGill University in Canada serving as their computer consultant for the past few years. He is originally from Wilmington, NC. Welcome home Bernard!

Olivia McAuliffe is our new research associate post doc working under Dr. Klaenhammer. She comes to us from the University of Cork in Cork Ireland. Her specialty is the characterization of Lacticin 3147. Welcome Olivia!

Randy Kotzian is our new dairy plant operator. He is from Moyock in Currituck County, NC and graduated from the NCSU Ag Institute in May, 2000. He received his Associate Degree with a major in agribusiness management. We are glad to have Randy on board.

Tom Mease joined us in March 2000. He has taken Barry Bright's position as Accounting Clerk. Tom worked for us previously in the dairy. Welcome back Tom!

Food Rheology Shortcourse
A short course titled "Rheological Analysis of Foods: Theory and Practice" was held May 31-

Sara M. Diraz BS '97 worked with Kraft R&D for one year on refrigerated ready-to-eat desserts, primarily Jell-O gelatin snacks. She was also involved in the development of the summer promotional "Americana" Jell-O. She is currently working as an Associate Scientist at Pepsi R&D in Valhalla, NY in the Product Quality group. She lives in Stamford CT with her husband Mohamed and daughter Laila.

Randir K. Athwal, MS '00 is living in Edmonton and is a food microbiologist.

June 2, 2000 at N.C. State University's Department of Food Science. The course was sponsored in part by the Southeast Dairy Foods Research Center. The program was designed to convey the basic concept of food rheology and
The focus on general concepts and practical applications was applicable to scientists working on basic research as well as product development. Thirty-four industry, academic and government scientists attended.

Food Science Club Wins Big Again
The Food Science Club won the Best Chapter of the Year award this year at the Institute of Food Technologists (IFT) meeting in Dallas, TX. This is the 4th time in the past 5 years that they have brought home this award. ALSO, they won first place in the National College Bowl competition. Congratulations to the following members of the team: Jeff Resch, Jack Davis, Logan Buck, Chris Wilcox, Amanda Dees, Nick Huemmer, Jon Firebaugh and their coach Dr. Allen Foegeding. Way to go guys!! Also please congratulate Melissa Fenn on her first place finish in the Dairy Foods Graduate Student Paper oral competition. Chris Wilcox won 2nd place in the biotechnology poster competition; and Hany Girgis won 3rd place in the biotechnology poster competition. The Food Science Club received an IFT Student Association Distinguished Chapter Award for their significance to IFTSA over the past 25 years of its history. Lisa Papageorge won 3rd place in the fruits and vegetables poster competition. Mark Cullison received the IFT Student Association award for the outstanding student club member voted for and recommended by the faculty advisors and executive committee. Wow! Congratulations to all!

Recognition for the Egg Team
Dr. Charles Beard, Vice president of U.S. Poultry and Egg Association (USPEA) cites Dr. Patricia Curtis, and Dr. Kevin Keener of Food Science and Dr. Ken Anderson of Poultry Science as having research that has yielded something the Poultry and Egg Industry considers of importance. Their research "gives good examples of directly useable research." The research deals with the cryogenic cooling of eggs and the impact of the rapid cooling on the quality and safety of eggs. Beard also says that there is no doubt in his mind that their technology will offer the egg industry a way to improve the safety and shelf life of eggs. Congratulations to all!

The President Visits the Department
Dr. Mary K. Schmidl, current president of Institute of Food Technologists came to the Dogwood Section of IFT's fall meeting on September 14 at the Food Science Department of North Carolina State University. This Dogwood section meeting was held in conjunction with the award-winning NCSU Food Science Club's annual Fall Kick-off. She presented a fascinating seminar entitled Trends and Directions in the Food Industry to a packed house in which she stated that the food industry's focus for the 21st century will be the integration of food science and technology with biotechnology and medicine to create useful, convenient, high quality products. To implement this focus in creating new products, especially those oriented toward health, one will need a global perspective and understanding of the relevant regulations with respect to structure-functional relationships i.e., consumer safety and health/disease claims. After her seminar she presented the following honors to the Food Science Club and members: 1) IFT Chapter of the Year; 2) the National College Bowl winners, Logan Buck, Jack Davis, Amanda Dees, Jon Firebaugh, Nick Huemmer, Jeff Resch, Chris Wilcox and coach Allen Foegeding 3) IFT Student Association Distinguished Chapter Award, 4) Poster Competition winner awards to Lisa Papageorge, Chris Wilcox and Hany Girgis, 5) Winning Dairy Foods paper competition to Melissa Fenn, 6) IFT Fellow award to Dr. Todd Klaenhammer, 7)
Distinguished Service Award to Dr. Peggy Foegeding and 8) Scholarship and Fellowship Recipients Caitlin Boon, Logan Buck, Rebecca Clark, Heather Hudson, Christina Sablova, Tracey Tuler and Rob Lombard. The Dogwood Chapter awarded Jessica Powell and Jon Firebaugh undergraduate scholarships.

Our condolences go out to Dr. Neil Webb, a former faculty member here in Food Science and presently an adjunct professor. His wife, Mary Smither Webb passed away on August 26 after a long battle with cancer.

Food Science Welcomes New Grad Students
Our new food science grad students joining in September are as follows: Toni Andrews, Mary Carunchia, Kamfai Chan, Amanda Dees, Jennifer Forkner, Katherine Innis McAlvoy, Lacey Johannes McKlem, Todd Katz, Jianying Li, Brian Lloyd, Noel Pollen, Todd Rausch, Kelly Stevens, Adam Tessneer and Brenda Watson. Welcome to the program!

Intercollegiate Dairy Competition
Each year approximately 22 student teams from universities of Canada and US compete in the Intercollegiate Dairy Competition for both individual and team wins. Each team consists of 4 undergraduate and 2 graduate members. Each member has spent many weeks tasting and learning to identify and score flavor, texture and appearance defects in milk, vanilla ice cream, strawberry yogurt, cottage cheese, cheddar cheese and butter. For the third year in a row, our own NCSU Food Science Department has trained and sent a team to the competition. This year they are undergraduates Noel Bray, Susan Hatley, Kelly Smith and Dawn Tuner (alternate) and graduates Bill Hanway and Amy Shekita. Our team brought home wins. They are undergraduate Kelly Smith fourth place, cheddar cheese; graduate second place, Amy Shekita, milk; Bill Hanway, third place, ice cream, and Bill Hanway fourth place, milk. Overall, our team ranked 9th. Congratulations to our team and "their overworked tastebuds" and their teacher/coordinator Dr. Art Hansen.

FS Club at the Fair
Once again, the Food Science Club sold ice cream at the North Carolina State Fair. This was by far the most successful and profitable year ever. These profits go to scholarships and professional development. The 7 delicious flavors of ice cream (chocolate, vanilla, strawberry, buttered almond, cherry vanilla, cookies & cream and chocolate mint) are made in our own dairy. Thanks to all the people who manned the booth including staff, faculty, students and especially to the 2 managers, Amanda Dees and Jon Firebaugh. Scooping is hard work!

Spookghetti Lunch
The 11th Annual Spookghetti lunch was a monstrous success this year. Ten labs and other groups of departmental ghouls submitted carved jack-o-lanterns to win a prize. The winners were Dr. Jaykus' lab with a pumpkin carved like a hot-air balloon. It was hard to pick the winner. Why was there no food left after the party? Because everyone was a goblin. Boo

New Food Science Class
This spring Dr. Brian Farkas will be teaching a new course, FS 592A that will cover unit operations found in the food industry. The course will build on the fundamental engineering principles covered in Introduction to Food Engineering, FS 231. They will study the various unit operations commonly used in the conversion of agricultural materials into food such as drying, blanching, freezing, extrusion,
evaporation and size reduction. This class is designed for the senior level undergraduate or graduate student wishing to learn more about the types of equipment available and their principles of operation.

CAPPS News
Four food engineering students from the department, Dorin Boldor, Cristina Sabllof, Adam Tessneer and Pablo Coronel, traveled to China in October. They participated in the 4th International Conference of Food Science and Technology at Wuxi University of Light Industry, Wuxi, Jiangsu, China. Upon returning they shared their experiences with the department through a seminar that included a video chronicling the trip. An NSF travel grant written by Dr. Sharon Shoemaker, CAPPS, UC-Davis Site Director, covered student travel expenses.

Employee Appreciation Brunch
On October 5, 2000 the Social and Recreation Committee hosted the Employee Appreciation Brunch for the entire Food Science Department. This annual event honors all of the department personnel including staff, faculty and students. The Committee cooked mounds of pancakes and sausage. The meal was followed by a raffle for a NCSU football shirt autographed by Phillip Rivers, the NCSU quarterback and other goodies. Two outstanding employees, Elaine Lowell and Susan Kall, were recognized by Ken Swartzel for their 10 years of dedicated service to the department.

Food Science "Survives" Christmas Party
On December 1 the department survived its annual Christmas Party. There was more food and more people than ever this year with smoked turkeys and hams and other delicacies supplied by the staff and guests too. Room 105 was transformed to a tropical island and the entertainment was a "Survivor" spoof with the less popular contestants (faculty) being voted off the island by students, each other and the audience. We were very grateful that no one took his shirt off. The last two survivors, who were part of the student alliance, were equally popular with the tribe so they split the $40 gift certificate. Congratulations Jon and Jeff. A special thanks you for the Social and Rec. Committee. We really outdid ourselves this year!

Graduation
Graduation was on December 20 at 11:30 am in Room 105 Schaub Hall. The candidates for BS degrees were Kevin Blair, Noel Bray, Elizabeth Christopher, Jonathan Tennant, Katie Smith, Nicholas Huemmer, Gareth Evans, Whitney Pierce and Michael Bashor. Candidates for Master of Science degrees were Melissa Fenn, Ross Tomaino, Ju-Jean Shaw, Kelly Webber, Lisa Sternhagen, Lisa Irving, Kelly Titch, Matt McGuffey, Rob Lombard, Bill Hanway, Lisa Goeller, Lisa Papageorge, Qixin Zhong, Andriana Vais, Rodolphe Barrangou, Hany Girgis and Mark Cullison. The candidates for Ph.D. degrees were Hengamah Allen and Stephen Sylvia. Congratulations all!

We are interested in what you have been doing since your graduation. I would like to post your news on our web page and in the departmental newsletter. Drop this form in the mail with your news and see your name in print!

Name ___________________________ Class of ____________

Address ____________________________________________

Send to Annee Moxley, Editor, Food Science, Box 7624, Raleigh, NC 27695 or annee_moxley@ncsu.edu