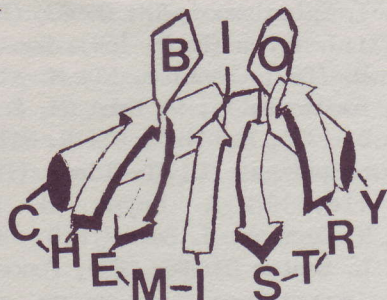




NEWSLETTER

Summer

1988



FROM THE DEPARTMENT HEAD

As promised in the last newsletter, we are in the process of moving to a new building. It remains as yet without a name of its own and is being called King II by some. We will be teaching labs there this fall, though whether we get the research labs moved by September is an open question.

Any of you who have been away for a while may be interested in the administrative changes that have come thick and fast at K-State during the last couple of years. Jon Wefald came from Southwest (Minnesota) State to replace President Acker two years ago. President Wefald has been particularly conspicuous in his efforts (successful so far) to reverse the recent decline in undergraduate enrollment. He has been an aggressive advocate for improvement in the university budget; he deserves much of the credit for our better luck in the legislature this year, after a couple of very bad years.

You may remember from our last newsletter the Owen Koeppe joined the department after retiring as Provost. Jim Coffman replaced Owen on an acting basis last summer; he was offered and accepted permanent appointment early in the fall. Jim was the Dean of Veterinary Medicine before taking his new job. After nearly a year, I have yet to hear anyone say anything bad

about him; he is an excellent choice. Tom Isenhour arrived in the fall to take over as Dean of Arts and Sciences. Tom was Dean of Sciences at Utah State, and before that, he was chairman of chemistry at North Carolina. He maintains an active research program on chemical structure data bases. Last and lowest on the totem pole, I have informed the department and the administration that I intend to step aside as department head at the end of next year. Plans to identify a successor will presumably be made during the next few months.

RESEARCH FUNDING PROGRESS

Research grants are not the only component of departmental quality, but the sum of grant dollars is the most public index of status. That being so, you might like to know how we have been doing. The figures for single-year expenditures from competitive grants compiled by the Graduate Dean's office are as follows:

1980	\$377,099
1981	\$371,579
1982	\$496,230
1983	\$555,601
1984	\$634,762
1985	\$610,000
1986	\$733,932
1987	\$724,125

We have some way to go as far as funding is concerned, but considering that the total was under \$100,000 as recently as 1974, we are pleased with our progress.

A REQUEST FOR YOUR ASSISTANCE

As with most enterprises, the Department of Biochemistry is striving to maintain high standards in the graduate and undergraduate programs. A major goal is to attract good students. One example of a problem in this area

is our inability to obtain any acceptances from American graduate students to whom we have offered departmental TA/GRA support during the past two years. The major difficulty is that we have not been able to increase our stipends adequately in response to a more competitive market. Fortunately, our program continues to attract good foreign students. Because state funds continue to be very limited, we need another approach.

We hope to build a fund of about \$50,000 that could generate about \$5,000 per year to be used as supplemental support for graduate and undergraduate students. To achieve this goal, we hope that we can attract about \$10,000 from alumni (from a one-time campaign). We would request that you consider directing any contributions to KSU to the Department of Biochemistry's alumni fund. We hope to attract the remaining \$40,000 from industry (~\$30,000) and from local sources (~\$10,000). One attraction of our program to industry should be the many successful graduates we have trained and who are now employed in industry. Another is the state of the art training in areas of molecular biology and immunology that we offer and are continuing to develop in our course work, teaching laboratories, and research programs.

We would greatly appreciate your direct support and your help in attracting support from industry.

FACULTY ACTIVITIES

From Phil Nordin

There are occasions in life when it is especially appropriate to take stock of where you have been--retirement is such an occasion. It usually turns out that the memorable things are the ordinary daily events and the conversations you had with students who worked with you in the lab. In the "beginning" when our department began as a nucleus of former chemists, **Shyam K. Dube** (Ph.D. '61) and **Lynn Stewart** (Ph.D. '62) continued graduate work with me in the new department. **Y.S. Kim** finished a Masters in Chemistry and went on to do further graduate work at St. Louis University. Evidently the academic atmosphere agreed with them, **Dube** now heads up a cloning lab at Yale, **Stewart** was a professor of biochemistry at Mehari Medical School at the time of his death

in 1981, **Kim** is a professor of pharmacology at St. Louis University.

Through the years others came to my lab and contributed so much. Our records show the following, and as you can see they have scattered far and wide: **S.Y. Chang** (M.S. '65); **N. Yadagiri** (Ph.D. '68), Friendswood, TX; **G. Rao** (Ph.D. '68), Irving, TX; **J. Brown** (Ph.D. '68), Keokuk, IA; **J. Mertz** (Ph.D. '69), Cheshire, CT; **M. Al-Shami** (M. Sc. '69), Saudi Arabia; **W. Hahn** (M. Sc. '70); **O. Brown** (Ph.D. '70), New York, NY; **R. Jilka** (M. Sc. '72), Blue Springs, MO; **T. Liang** (Ph.D. '72), Cockeysville, MD; **A. Heyne** (M. Sc. '75), Freiburg, W. Germany; **J. Barr** (Ph.D. '80), Kansas City, KS; **L. Santos** (M. Sc. '81), Ponce, PR.

My retirement began this spring, and we plan to stay in Manhattan. I expect to be on campus a bit and would like to keep in contact with former colleagues. The department has grown a lot since its formation, but will always remain interested in its alumni. Drop us a line when you have time, and keep us up to date.

From Jerry Reeck

The research in my laboratory could be described as a mixture of protein chemistry and molecular biology. In essence, we are interested in the structures and the functions of proteins of at least two sorts and from a variety of sources. In addition to using the traditional methods of protein purification and characterization, we are beginning to rely on recombinant DNA methods to answer questions about individual proteins.

We continue our long-standing interest in the nonhistone chromosomal HMG proteins. HMG proteins are abundant DNA-binding proteins that probably are involved in DNA replication and/or RNA transcription. Recently, **Dr. Lisa Wen** (Ph.D. '83) has purified and sequenced a full-length cDNA clone that encodes human HMG-1. This opens up new areas of opportunity in studying these proteins. A second major interest is studying substrates and inhibitors of a human blood coagulation enzyme called activated Hageman factor. We are studying the enzyme's action on synthetic peptides (a line of work initiated by **Georges Chong**) and **Dr. Wen** has isolated a cDNA clone for the inhibitor. This sets the stage for site-directed mutagenesis studies.

Another area of current effort is seed inhibitor proteins as protective agents against

insect attack. Here, we work in close collaboration with Drs. S. Muthukrishnan and Karl Kramer.

A final area in which good progress is being made is computerized methods for sequence comparisons. Kirk Clark, in my laboratory, has now nearly succeeded in writing programs that can be used on a personal computer that will allow a much more rigorous assessment of alignments than commonly-used programs do. The research in Dr. Reeck's lab is supported by grants from NIH, Rockefeller Found., Bard, Am. Heart Assn., and US Spain.

OLD FRIENDS

Bryce Cunningham left the department a couple years ago to work independently on peroxidases and other bioanalytical reagents. He is now living in Coralville, IA, which is right next to Iowa City and the former VA hospital where he has his offices and labs. He still gets back to Manhattan to check out the action here. It turns out that turnips are nearly as good a source of peroxidase as horseradish and a lot easier to handle. Right now he's testing out some of the chenopods as a source for oxalate oxidase, another enzyme of interest. If he can find a use for a million tons of lambsquarters he will really make a lot of farmers happy.

Bill Ruliffson, who retired in 1983, reports that he has been doing a good deal of traveling "from Cape Cod to Phoenix and points between", especially for visits to Bill's son in Hays, his daughter in Athens, GA, and Ruby's family in Des Moines, IA. The Ruliffsons travel accompanied by a pair of golden retrievers. Bill's jogging exercise now involves chasing the dogs. Bill started long-distance bicycle touring several years ago, and he has done the cross-Kansas and cross-Iowa tours three times each. He is still singing in the barbershop chorus but is between quartets at the moment.

Jean Olson worked last summer at a shop in Yellowstone National Park. She travels to see her children pretty often; her son is in Garden City, KS, one daughter, Nancy, is in Colorado Springs, CO, and her other daughter, Susie, has lived in Florida, Connecticut, and Texas. When she is at home, she reports that she spends most

of her time taking care of her house and garden, playing bridge from time to time, and walking three to five miles a day.

NEWS NOTES

Thanks to all of you who took time to write us a note. Perhaps this sample will inspire the rest of you to drop us a line concerning your whereabouts and activities.

In California we find Myron K. Knight (B.S. 70) works for U.S. Analytical Instruments using his chemistry background and computer/electrophoresis training to checkout and repair equipment for rent and lease. Gary Tallman (postdoctoral 1976-78) is an Associate Professor of Biology at Pepperdine University (Malibu). He has published recently on stomatal function in senescent leaves.

Moving further east we find a cluster of students in medical school. Stephen Marshall (B.A. 85) and DeAnna Heller (B.S. 85) were married June 20, 1987. They are both third-year students at KS School of Medicine in Wichita. Marc Daymude (B.A. 86) is currently a commissioned officer in the U.S. Army and a second-year student at the Uniformed Services School of medicine in Bethesda, MD. He plans to continue in emergency medicine after his graduation in 1990. Blake Wendelburg (B.S. 84) is enrolled in the M.D.-Ph.D. program at KU Medical, with the Biochemistry Dept. His Ph.D. work concerns the role of phospholipid transfer proteins in lipid metabolism.

Carol Dziadik Turner got her Ph.D. in 1981, working with Karl Kramer at the U.S.D.A. Grain Marketing Research Center. She then took a job in Kansas City at the K.U. Medical Center with Alan Rawitch for a few years. Since March 1985 she and her husband Dan have been parents to twins. In the fall of 1986 she became a member of the science department at the upper school of the Hyman Brand Hebrew Academy in Overland Park. She teaches both chemistry and biology, working some biochemistry into each. Classes are small so there is opportunity to try out new things like chromatography of plant pigments on coffee filters—which works well by the way. Also, exams don't take so long to grade, though they take just as long to write for 5 as 500.

Tim Verschelden, who is teaching in Kansas City, stops by from time to time to catch up on local news. He has enjoyed his first year there. Dennis Nuzback (M.S. '79) received a D.V.M. at

the College of Veterinary Medicine and a Ph.D. in animal nutrition in the laboratory of Dr. Nagaraja in Animal Sciences. **Christina Chang** finished her Ph.D. with Larry Davis and is now doing postdoctoral studies with Tom Roche. **Georges Chong**, who just completed his Ph.D. with Jerry Reeck, will be moving to the Mayo Clinic to do further work in clinical laboratory management. **Rownak Rahmatullah**, who just completed a Ph. D. with S. Muthukrishnan, will take a postdoctoral position with R. Consigli in Biology. **Burachai Sonthayanon**, who also just completed a Ph.D. with S. Muthukrishnan, studying barley amylases, will be returning to Thailand. **Debra Montgomery**, who got a M.S. with Dee Takemoto last year, went to work for Don Roufa in Biology and has also added a child to her family. **Ernie Pitts**, who finished a M.S. with Charlie Hedgcoth, is working in Kansas City in Microbiology at the KU Med. Center. **Cheryl Knox** (postdoctoral with S. Muthukrishnan and C. Hedgcoth) just took a teaching job at St. John's College in Minnesota.

Still further east, **Dan Land** (Ph.D. '85) is now an independent consultant to Oak Ridge Nat'l. Lab. Office of Risk Assessment. While he was here, Dan did graduate work in computing as well as biochemistry and is putting both sets of skills together in analyzing hazardous waste dumps for health risks. He is involved with workshops to train people in state offices for identification of health risks, writing books, computer programming, etc.

In the Washington, DC area, **Dr. Clark Lum** (Ph.D. '71) is Executive Secretary of the Hematology Study Section, NIH. **Marilyn Mai** (B.S. '78) has married and moved east to the Washington, D.C. area. **Robert Madenjian** (B.A. '73) is now a D.V.M. and living in Brooklyn, CT.

Our midsummer contest is to identify the first undergraduate of the Biochemistry Department. We'll give you a clue that a photo of this person appeared in the first departmental brochure. Prize is a phone call from Ken Burkhard giving you congratulations on your knowledge. Get your entries in today.

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News Notes concerning you
or other graduates:
