

Zoo Path Program Marks 20 Years of Service

By Herb Whiteley, dean

I'm proud to announce that the college's Zoological Pathology Program, founded in 1993, has grown from a two-person service focused on the Chicago area to a six-person service with impact around the world.

"The program was started to provide comprehensive diagnostic services to three Chicago institutions—Brookfield Zoo, Lincoln Park Zoo, and Shedd Aquarium—to assist them in managing the health of their animal populations," recalls program director Dr. Mike Kinsel, who was one of the program's first residents.

Today the program serves these core institutions and a great many more, from federal wildlife agencies to zoos and conservation organizations on three continents.

"Our program has earned an international reputation for excellence in diagnostic service, education of residents and veterinary students, contribution to worldwide conservation efforts, and original scholarship," says Dr. Kinsel.

All faculty in the program are engaged in teaching, research, and service. Service encompasses fee-for-service diagnostics as well as service to the veterinary pathology profession and service on international Species Survival Plans and other programs that support the conservation of threatened or endangered species. Scholarly contributions of the program's faculty and residents since its inception total more than 100 refereed publications and 80 meeting abstracts.

Though it is part of the college's Veterinary Diagnostic Laboratory, the Zoo Pathology Program is headquartered at the Loyola University Medical Center in suburban Maywood—an unlikely location for a program involved in such a diverse range of zoo and wildlife species. In addition to standard pathology testing, a new and growing component of the program's service is its Molecular Diagnostic Laboratory, which offers 18 PCR-based assays to identify bacterial and fungal organisms in samples from birds, reptiles, fish, and marine mammals.

Dr. Katie Colegrove focuses on those species, including researching diseases of wild pinnipeds—seals, sea lions, and walruses. Dr. Kinsel also works extensively with marine mammals and most enjoys cetacean cases—whales, dolphins, and porpoises. Both have served

on investigative teams when the National Oceanic and Atmospheric Administration (NOAA) identifies an “unusual mortality event” among marine mammals, as happened when hundreds of dolphins stranded along the northern Gulf coast in the past several years.

Dr. Karen Terio has developed a research and diagnostic focus on exotic feline species and free-living primates. She was part of a multi-institutional research effort that enhanced understanding of AIDS-like immunopathology in naturally infected SIV-positive chimpanzees, and served as a lead author on a resulting publication in *Nature*. She also serves on the American College of Veterinary Pathology examination committee, which she will chair this year.

Dr. Jaime Landolfi, who has a half-time appointment within the zoo path program, is investigating tuberculosis in elephants as part of her PhD degree. She has a joint appointment with the University’s Chicago campus to conduct training for lab animal residents.

The highly competitive, three-year zoo path residency program accepts a new resident each year, and boasts eleven program graduates who have gone on to positions in laboratories, zoos, and universities in Australia, England, France, Spain, and the United States.

“Our training program enjoys an incredible diversity of species,” says Dr. Kinsel. “Even though we’re about as far from the ocean as you can be, we receive a large complement of fish cases from the Shedd Aquarium.”

A new component of the residency program is the concomitant master’s degree. Residents now spend their first two semesters in Urbana, where they complete coursework and see a large complement of domestic species on necropsy floor of the college’s Veterinary Diagnostic Laboratory.

“This provides the basis for comparative pathology,” notes Dr. Kinsel, “as well as invaluable preparation for the board examination. To pass boards, residents need to know more than just snakes, fish, and marine animals.”

The zoo path program also offers an externship program that takes six veterinary students a year. Residents in the zoo medicine residency program jointly run by the college, Brookfield Zoo, and Shedd Aquarium spend one month of training at the zoo path program.

What's next for this prestigious program with an international profile? Something a little closer to home.

“This year we plan to expand our work with the Cook County Forest Preserve District and the Cook County Department of Animal and Rabies Control,” says Dr. Kinsel, “studying disease in free-ranging wildlife locally.”

Plans to recognize the 20-year anniversary are in the works, so stay tuned for more on this exciting program.