



7-1-2003

New DNA Test for MPS VI in Miniature Pinscher

Scholarships

The **American Kennel Club** awarded a Chairman's Scholarship to Dana Clark, V'06. Garret Patchinger, V'05, received a **Western States Scholarship**. **SCAVMA Community Service Grants** were awarded to Daphne Downs and Robert Mankowski, Class of '04; David Shere and Zoe Ramagnano, Class of '05; and Jennifer Feiner and Jennifer Swallow, Class of '06. Three members of the Class of '06 each received a **Donald E. Cross Scholarship for Large Animal Medicine**: Lauren Green, Caitlin Roberts, and Alison Wolfgram.

James Shissler, V'04, and Ellen Angstadt, V'04, each received a **Wagner Rural Medicine Scholarship**. Anne Prickett, V'04, received the **Lloyd's Equine Research and Education**

Program Scholarship. The **Dauphin County Resident Scholarships** were awarded to Lauren May, V'05, and Mary Palopoli, V'06.

Lois F. Fairchild Scholarships in Veterinary Public Service were awarded to Aylin Attila, V'04, Alison Loupos, V'05, and Emily Jones, V'05. Four members of the Class of '04 received **Pennsylvania Veterinary Foundation Scholarships**: Jill Compton, Josh Eaton, Cailin Heinze, and Laura Javscas. The **Westminster Kennel Foundation Scholarship** was awarded to Christa Regan, V'04. Five members of the Class of '04 each received a **Dr. J. E. Salsbury Scholarship**: Josh Eaton, Lauren Entes, Carrie Horton, Jennifer Kaae and Christa Regan.

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Scholarships were awarded to Timothy Mosebey, V'05, and Michelle Register, V'06. The **Union County Kennel Club** awarded a scholarship to Rebecca Taylor, V'05. Josh Eaton, V'04, and Kelli Russell, V'04, each received a **Ch. Forfox Liz Claiborn Scholarship**. The **Swiss Benevolent Society** awarded a scholarship to Nadine Salome, V'06.

Shirley E. Possinger Dean's Scholarships were awarded to the following members of the Class of '04: Beth Appleman, Mandy Becker, Cailin Heinze, Lisa Lipitz, Adriane Pfeninger, and Tara Strawderman; and to the following members of the Class of '06: Gordon Peddle, Kimberly Russell, Jennifer Stevens, Kristina Willoughby, and Daniel Zawisza.

Ann Kroken, V'04, received a **Charles F. Reid Dean's Scholarship**. The Eric Tulleners Dean's Scholarship was awarded to Angela Davies, V'04. The following members of the Class of '04 received **Anne Linn White Dean's Scholarships**: Allison Billings, Kristen Hart, Laura Javscas, Megan Manfredi, and Todd Stochlic. **Charles S. and Phyllis H. Wolf Dean's Scholarships** were awarded to the following members of the Class of '04: Dora Connelly, Rachel Pearson, and Abigail Smith.

Mrs. Jack L. Billhardt Dean's Scholarships were awarded to the following members of the Class of '04: Michele Koch, Bjorn Lee, Kelli Russell, and Arlene Schneiderman.

The following members of the Class of '04 are the recipients of **Dr. M. Josephine Deubler Dean's Scholarships**: Kara Ballek, Holly Edwards, Oli Morgan, Regina Pellegrin, and Erin Wright.

Rebecca Schrader V'04, and Jennifer Seybold, V'04, are each a recipient of an **Ethel H. Mitchell Dean's Scholarship**. **Bruce J. Heim Dean's Scholarships** were awarded to the following members of the Class of '04: Aylin Attila, Stephen Godin, and Courtney Maeda. Garret Patchinger, V'05, is the recipient of the **Jack Mara Dean's Scholarship**. **Hill's Pet Product Dean's Scholarships** were awarded to the following members of the Class of '05: Jessica Bertout, Christopher Blum, Amanda Bowden, Meghan Brumstedt, Jennifer Cohen, Anthony Dallatore, Amy Durham, Laurel Frydenborg, Kaira Geithman, Sabrina Goscilo, Justin Kontir, Audra Olsen, and Aimee Simpson; and to the following members of the Class of '06: Anthony Acquaviva, Rachel Choi, and Christine Claycomb.

The following members of the Class of '04

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New DNA Test for MPS VI in Miniature Pinscher

A new DNA-based test for mucopolysaccharidosis type VI (MPS VI) to identify affected, carrier, and normal miniature pinschers has been developed by researchers at the School.

MPS VI, an inherited lysosomal storage disease, has been seen in cats. The miniature pinscher is the first dog breed in which it has been identified. Affected miniature pinschers have been found in various states in the US and abroad, making this appear to be more widespread and under-diagnosed than previously thought. Diseases in the MPS group inhibit the cells' ability to break down large sugar molecules and parts of the molecules accumulate in cells. This leads to deformities of limbs, vertebrae, sternum, and particularly, the hips. Affected animals may also have corneal cloudiness and facial malformations.

The test identifies affected, carrier, and normal miniature pinschers. Identification of carriers is particularly important as they show no signs of the disease. By knowing who the carriers are, breeders can avoid mating two carriers, which could produce affected animals, and will assist in eliminating the mutant allele altogether from the breed.

The test was developed by **Dr. Polly Foureman**, a Josephine Deubler Fellow in the School's Section of Medical Genetics. The DNA-based test requires a blood sample to be submitted to the Josephine Deubler Genetic Disease Testing Laboratory at Penn. The research and test development were supported

by grants from the AKC Canine Health Foundation and the National Institutes of Health.

The Penn medical genetics researchers, under the direction of **Dr. Urs Giger**, are also examining whether the common occurrence of Legge-Calves-Perthes (LCP) disease in miniature pinschers and other breeds is related to MPS VI. LCP, a devastating hip disease, is characterized by necrosis of the femur head. The cause remains unknown. LCP differs from hip dysplasia and MPS VI, but similar bone changes are observed in miniature pinschers with MPS VI. Penn's researchers want to determine if there is an association between MPS and LCP disease in this and other breeds with LCP disease. This study is done by Lisa Berman, senior biology student at Penn, and is also funded by the AKC Canine Health Foundation.

Dr. Giger and his colleagues are requesting that breeders, owners, and veterinarians who suspect either condition in a miniature pinscher contact the laboratory. For a limited time the first 100 samples will accepted free of charge. Test results will be kept confidential and information about individual animals will only be reported to the owner. For further information, please visit the web site at <www.vet.upenn.edu/penngen> or contact Dr. Giger or **Dr. Lisa Sarvas**, the current Deubler Fellow, at <penngen@mail.vet.upenn.edu> or by fax at 215-573-2162.