

# AVSAB

## Newsletter of the American Veterinary Society of Animal Behavior

JUNE 2000

Victoria Voith, DVM, DACVB, Editor

Laurie Martin, DVM, Assistant Editor

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### Officers 1998-2000

#### President

Dr. Debra Horwitz  
12462 G. National Bridge  
Bridgeton, MO 63044  
314-739-1510  
fax: 314-291-2116  
e-mail: DebHdvm@aol.com

#### President-elect

Dr. Victoria L. Voith  
5129 Scarsdale "D"  
Dayton, OH 45440  
937-439-1342  
fax: 937-427-9955  
e-mail: victoria.voith@wright.edu

#### Immediate Past President

Dr. Ilana Reisner  
P.O. Box 105  
Brooktondale, NY 14817  
607-539-3116  
fax: 607-539-3140  
e-mail: ilanaR@aol.com

#### Secretary-Treasurer

Dr. Laurie Martin  
201 Cedarbrook  
Naperville, IL 60565  
630-983-7749  
fax: 630-759-0094  
e-mail: martinla@juno.com

#### Member at Large

Dr. Caroline Schaffer  
2419 Brothers Drive  
Tuskegee, AL 36083

## President's Message

This is my last message as president of AVSAB and there are many people I need to thank. First, when I began as secretary-treasurer in 1994 it was all so new to me and Wayne Hunthausen, Sharon Crowell-Davis, Gary Landsberg and Ilana Reisner helped me learn the ropes. As the next 6 years went by not only did I continue to work with Ilana (who was great) but Laurie Martin, Caroline Schaeffer and now Victoria Voith. I thank them all for their help and dedication to AVSAB.

As I move on to Immediate past President (and a much-deserved newsletter rest) I want to once more put out the call to our membership. This organization has so much to offer each and every one of you. From our listserv to our fantastic annual paper and poster presentation, AVSAB offers a unique forum for veterinarians to learn about applied animal behavior. But if we are to continue to grow and thrive we need involvement by our members. I am pleased by all the new names and faces

running for office this year and volunteering to help with the booth, website and programming. We could do so much more with your help. A newsletter committee could help insure timely pieces of information in our newsletter, the secretary-treasurer could use help with compiling our directory, the booth can always use more volunteers. Please consider becoming more active.

I hope that many of you will plan to attend our annual paper and poster session at AVMA. We will be holding our meeting on Monday, July 24 in Salt Lake City, UT at the Wyndham Hotel, see the inside of the newsletter for the program details. Don't forget the two days of behavior lectures prior to our meeting, Saturday, July 22 and Sunday, July 23, 2000.

Thanks for the memories and hope to see you in Salt Lake!

Debbie Horwitz, DVM, DACVB

## AVSAB Student Paper Award

The 2000 AVSAB Award for Student Excellence in Applied Animal Behavior Research has been awarded to Stephanie Shanahan, Ontario Veterinary College, Class of 2002.

She will be presenting her paper "Loading Stress in the Horse: Behavioral and physiological measurement of the effectiveness of non-aversive training (TTEAM) for horses with loading resistance" at the AVSAB meeting in Salt Lake City this summer.

The student award is accompanied by \$1500, generously contributed by Premier Pet Products (\$1000.00) and Novartis Animal Health (\$500).

# Behavior Rx: The MAOIs

**Barbara S. Simpson**  
PhD, DVM, DACVB

## Introduction

The monoamine oxidase inhibitors (MAOIs) are a group of drugs which act by inhibiting the action of monoamine oxidase (MAO). MAO is an enzyme that catabolizes monoamine neurotransmitters, including norepinephrine, epinephrine, serotonin, and dopamine. Inhibition of neuronal MAO produces an increase in the cytoplasmic amines. Therapeutic action of MAOIs may be a result of this amine accumulation or may be due to secondary adaptive mechanisms, such as alteration in number of alpha-adrenergic, beta-adrenergic, and serotonin receptors.

In humans, MAOIs have been used for the treatment of depression, panic disorder, generalized anxiety, social phobias, obsessive compulsive disorder, post-traumatic stress syndrome, hypochromidiasis, and Parkinson's disease. Since MAOIs are associated with potential serious drug and food interactions, newer agents have largely replaced them as first line treatment for these behavioral disorders.

MAOIs are subdivided on the basis of the particular subtype of MAO inhibited. They may also be classified based on whether the inhibition they produce is reversible or irreversible, e.g. requires synthesis of new MAO. There are two isoenzymes of MAO: A and B. Both are present in discrete cell populations in the CNS of mammals. In humans, the main substrates for MAO-A are norepinephrine, epinephrine, and serotonin, dopamine, and tryptamine. The main substrates for MAO-B are dopamine, tyramine, tryptamine, phenylethylamine, phenylethanolamine, and

benzylamine. Classical MAOIs are non-selective. Newer MAOIs are selective for either MAO-A or MAO-B.

The classical MAOIs are phenelzine (Nardil) and tranylcypromine (Parnate). In humans, these drugs are now largely used for refractory or atypical cases of depression. Side effects typically include orthostatic hypotension, insomnia, and sexual dysfunction. They also have a multiplicity of drug interactions and require certain dietary restrictions. These primarily involve avoiding tyramine-containing foods, such as cheese and wine. If MAO is inhibited by an MAOI-A, ingestion of tyramine-containing foods can result in dangerous elevations of blood pressure. Of note is the fact that amitraz (Mitaban dip, PrevenTic collar) is a nonselective MAOI commonly used in veterinary medicine. Thus, its use with other antidepressants should be strictly avoided.

MAOIs can interact with other drugs, often with serious consequences. Drugs to be avoided during MAOI treatment include anesthetic regimes which include epinephrine or narcotics (especially meperidine), sympathomimetics, L-tryptophan, and serotonergic antidepressants including clomipramine (Anafranil, Clomicalm), fluoxetine (Prozac), nefazadone (Serzone), and mirtazapine (Remeron). Before starting an MAOI, these drugs should be discontinued for 2-5 weeks depending on the specific agent. As MAO also metabolizes serotonin, the other primary monoamine, concomitant use of an MAOI with these agents can result in serious, sometimes fatal, reactions with signs of hy-

perthermia, rigidity, myoclonus, autonomic instability, and changes in mental status. MAOIs must be stopped at least 2 weeks before starting any drug which increases serotonergic activity.

## Selegiline

Selegiline is a selective inhibitor of MAO-B. In humans, it is used primarily as an anti-Parkinson agent with possible application as an antidepressant and for the treatment of Alzheimer's disease. Doses below 10-15 mg daily in humans do not require dietary restrictions. At higher doses, selegiline loses its isoenzyme selectivity and dietary tyramine must be limited.

In dogs, selegiline is used for the management of canine pituitary-dependent hyperadrenocorticism and canine cognitive dysfunction. In contrast to humans, doses of 1 mg/kg/day in dogs do not result in increases in dopamine in the CNS or increases in MAO-A. Selegiline is metabolized to N-desmethylselegiline, levoamphetamine, and methamphetamine. The metabolites of selegiline may contribute to the stimulating effect or stereotypical responding occasionally seen with this drug, particularly at high doses.

In conclusion, the MAOIs, as a group, have limited behavioral applications in veterinary medicine. Selegiline, however, as an MAO-B specific inhibitor, has been shown to be effective for the treatment of canine cognitive dysfunction. Primarily in Europe, selegiline's use for "emotional disorders" is also currently being explored.

## References:

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Kaplan HI, Sadock BJ. *Pocket*

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Ruehl WW, Bruyette DS, DePaoli A et al. Canine cognitive dysfunction as a model for human age-related cognitive decline, dementia and Alzheimer's disease: clinical presentation, cognitive testing, pathology and response to L-deprenyl therapy. *Progress in Brain Research* 106: 217-225, 1995.

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Stahl SM. *Psychopharmacology of Antidepressants*. London: Martin Dunitz, 1998.

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## Recent Appointments

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### Dr. Amy Marder

Dr. Amy Marder is now Vice President of Behavioral Medicine and Companion Animal Services at the ASPCA in New York City. Among her many activities are developing and educating the public on topics related to shelters and animal behavior, identifying, preventing, and treating behavior problems of animals in the shelter, supervising and educating the staff regarding questions on the ASPCA behavior helpline, educating staff and volunteers regarding behavioral programs, overseeing obedience and agility classes for dogs, providing help to owners and animals with behavior problems, and supervising externship programs for veterinary and Ph.D. students. Dr. Marder received her Veterinary Medical Degree from the University of Pennsylvania in 1979 and completed the first residency in clinical animal behavior in the U.S. at Penn in 1985.

### Dr. Petra Mertens

Dr. Petra Mertens recently joined the faculty of the University of Minnesota as an Assistant Professor in Behavioral Medicine in the Department of Small Animal Clinical Sciences. Her position encompasses 50% clinical, 30% research, and 20% teaching duties. Included among the teaching responsibilities are core and elective behavior courses and clinical rotations. Dr. Mertens was formerly with the Univer-

sity of Munich, Faculty of Veterinary Medicine. Dr. Merten's degrees in Veterinary Medicine (TA=DVM), 1992, and Ph.D., 1994, are from the University of Munich, Germany. She is also a Diplomate in the German Specialty Group of Animal Behavior (FTAV) and the Vice President of the European Society for Clinical Veterinary Ethology.

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## AVSAB Brochures

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Beautiful AVSAB Brochures describing the society and including a membership application are available from the AVSAB secretary/treasurer. Many thanks to Novartis Animal Health for underwriting the production of this professional looking and helpful publication.

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## HELP WANTED

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AVSAB will again have an educational booth in the exhibitors area at the AVMA Salt Lake City meeting. Gather around, ask questions, answer questions, pick up brochures, take a turn "personing" the booth.

# News Notes

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## Congratulations!

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Dr. Gary Landsberg, DACVB was the recipient of the Friskies PetCare Award for Excellence in Companion Animal Behavior. Dr. Landsberg received his award at the AAHA annual meeting held in Toronto in March 2000.

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## Editor's Message

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1. Don't forget to vote 2. Please note that in addition to two full days of behavioral topics Saturday and Sunday in the Companion Animal Section at the AVMA meeting, there are also presentations concerning behavior on Tuesday and Wednesday (Human-Animal Bond topics in the Companion Animal Section) 3. Please send position announcements, recent appointments, information regarding recently published papers by members, and other information that may be of interest to members to the newsletter editor. 4. Visit the AVSAB booth at AVMA.

# 2000 AVSAB Poster Presentations

**Monday July 24, 2000 5-7 p.m. Sponsored by Pfizer Animal Health**

**“Behavioral Response to Early Pre-pubertal Castration in the Horse”**

Weeks, J.W., Caudle, A.B., Crowell-Davis, S.L., and Huesner, G.

**“Responses Of Shy, Anxious, and Fearful Dogs to the Lactate Test: Assessment of the Test as Provocative Index and Application in Mechanistic Diagnoses”**

Overall, K.L., Dunham, A.E., Acland, G.

**“Harem Size Effects On The Testosterone Level In Misaki Feral Horses”**

Khalil, A.

**“Gender Differences In Play In Kittens (Felis Catus)”**

Gerstenfeld, N.K., Crowell-Davis, S.L.

**“Attachment of Dogs To Their Owners – The Preliminary Results of a Modified Ainsworth Strange Situation Test”**

Parthasarathy, V., Wucinski, B., Romano, J., Crowell-Davis, S.

**“The Distribution of Canine Behavior Cases at Behavior Only Practice in Japan”**

Ogata, N.

## Schedule of Speaking Engagements and Seminars

**AVMA Annual Meeting  
Salt Lake City, Utah  
July 22-23, 2000**

Two full days of lectures on Canine and feline behavior

**Atlantic Coast Veterinary  
Conference, Atlantic City, NJ  
October 10-12, 2000**

Debra Horwitz, DVM, DACVB  
and Jacqui Neilson, DVM, DACVB  
17 hours Canine and feline behavior  
for technicians and veterinarians.

**Italian Veterinary Association  
Meeting  
Turin, Italy  
November, 10-12, 2000**

Debra Horwitz, DVM, DACVB  
10 hours Canine and Feline behavior

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### R. M. Miller, D.V.M. Seminars on Equine Behavior and Misbehavior 2000

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**July 8-12  
Yosemite, California**

Seminar for horse people on back country pack trip. Contact Frontier Pack Train, 1012 E. Line, Bishop, CA 93514. Phone: 760-873-7971

**July 29-31  
Big Island, Hawaii**

Seminar for horse owners. Contact The Walker Ranch, P.O. Box 1623, Kamuela, HI 96743. Phone: 808-880-1800

**August 23-25  
Estes Park, Colorado**

Symposium for veterinarians. Sponsored by The Journal of Equine Veterinary Science. Phone: 909-678-1889

**August 26  
Estes Park, Colorado**

Seminars for all horse people at same location as above. Phone: 909-678-1889

**September 24-October 1  
Seminar in the Sun**

Sandals Royal Bahamian Resort, Nassau, The Bahamas. For veterinarians. Contact Dr. Fred Soifer, 729 Highgrove Park, Houston, TX 77024. Phone: 713-688-5678

(Note: This program is *not* on equine behavior, but on animal behavior in general plus other aspects of veterinary practice.)

**November 1  
Indiana Equine Veterinary Practitioners**

Seminar for practitioners. Contact Dr. Tim Bartlett at 812-882-8420.

**November 3  
New Mexico Veterinary Medical Association**

Ruidoso, NM. Contact Marjorie Nelson, Exec. Secretary NMVMA

**November 26-29  
American Association of Equine Practitioners**

Annual Convention in San Antonio, Texas. Will include a lecture by Dr. Miller on “The Revolution in Horsemanship.”

# 2000 AVSAB Paper Presentations Schedule of Speakers

Monday July 24, 2000

Wyndham Hotel, Salt Lake City, Utah

8:00 to 8:30 a.m.	<b>REGISTRATION, COFFEE AND REFRESHMENTS</b>	
8:30 to 8:50 a.m.	R. Wolfe and S. Crowell-Davis	“Sociality Model for the Free-Ranging Domestic Cat”
8:50 to 9:10 a.m.	Amy Marder	“Behavioral Indicators of Abuse in Dogs”
9:10 to 9:30 a.m.	Stewart Hilliard	“Assessing Performance in Substance Detection Dogs”
9:30 to 9:50 a.m.	Patrick Pageat	“Equine Appeasing Pheromone”
9:50 to 10:10 a.m.	Melissa Bain	“Age Related Cognitive Changes in Cats”
10:10 to 10:30 a.m.	Question and Answer Session	
10:30 to 10:50 a.m.	<b>COFFEE BREAK</b>	
10:50 to 11:10 a.m.	Joel Dehasse	“The Use of Methylphenidate in Dogs”
11:10 to 11:30 a.m.	Daniel Mills	“A Psychometric Analysis of the Construct of Canine Anxiety”
11:30 to 11:50 a.m.	Diane Frank and Karen Overall	“Co-occurrence of Noise/ Thunderstorm Phobias and Other Anxieties”
11:50 to 12:10 p.m.	Norma Charlotte Guy	“The Real Motivation for Canine Household Aggression”
12:10 to 12:30 p.m.	QUESTION AND ANSWER SESSION	
12:30 to 2: 30 p.m.	<b>LUNCH (SPONSORED BY PREMIER PET PRODUCTS AND ANIMAL BEHAVIOR SYSTEMS) and AVSAB ANNUAL BUSINESS MEETING</b>	
2:30 to 2:50 p.m.	<b>THE AVSAB STUDENT AWARD FOR EXCELLENCE IN APPLIED ANIMAL BEHAVIOR RESEARCH UNDERWRITTEN BY NOVARTIS AND PREMIER PET PRODUCTS</b>	
2:50 to 3:10 p.m.	Patrick Pageat	“The Feeding Behaviour in the Dog: Functional Relationship with Dominance Problems”
3:10 to 3:30 p.m.	Petra Mertens	“Serotonin and 5-Hydroxyindolacetic Acid in CSE, Serum, and Plasma In Dominant-Aggressive Dogs and Non-Aggressive Dogs”
3:30 to 3:50 p.m.	<b>BREAK</b>	
3:50 to 4:10 p.m.	Renate Jones-Baade	“Aggression in Dogs Revisited”
4:10 to 4:30 p.m.	Claude Beata	“Hierarchy Related Behavior Disorders Without Aggressiveness”
4:30 to 4:50 p.m.	Marielle Simard	“Relevance of Owner’s Attitude in the Exacerbation of Canine Dominance Aggression”
4:50 to 5:00 p.m.	QUESTION AND ANSWER SESSION	
5:00 to 7:00 p.m.	<b>POSTER SESSION AND RECEPTION — SPONSORED BY PFIZER ANIMAL HEALTH</b>	

# Biographies of AVSAB Officer Nominees

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## President-elect

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### Janice Willard

Janice Willard received her B.S. in psychology in the late 1970s with an emphasis in animal behavior. She received a B.S. and M.S. degree in animal science where she studied and is published in reproductive physiology. Concern for the then prevalent attitude to limit animal science research to physical parameters and not consider the behavioral aspects of animal care prompted her to enter the field of veterinary medicine where she graduated from WSU in 1992. Following that, she and her family lived in Japan for several years and upon returning to the States, she studied graduate psychology with Dr. Allen Gardner at UNR. She has a diverse experience in animal behavior research including participation with Dr. Hal Markowitz's enrichment studies at the Portland Zoo, radio tracking salmon through the Columbia River dams and writing new mutant mouse protocols which better assess health concerns in a university laboratory animal setting. Janice is married, has two young children and lives on a farm in Idaho. She is currently opening a practice limited to behavior. In addition to her interests in veterinary medicine and behavior, Janice is an ardent musician and enthusiastically participates in community music events.

### Lynn Seibert

Education:

Ph.D. Psychology: to be completed 2001: Dissertation topic: Effect of a serotonin reuptake inhibitor on feather-picking behavior in Cockatoos.

M.S. Biopsychology: University of Georgia, 2000. Thesis topic: Gender effects on aggression, dominance rank, and affiliative behaviors in a captive flock of Cockatiels. DVM University of Tennessee, 1994. B.S. Biochemistry: Indiana University, 1990 (magna cum laude).

Experience:

Clinical Behavior Residency: University of Georgia 1997-2000: completing residency in August, and sitting behavior boards in October, 2000. Private practice: 1994-1997 Consultant: Novartis Clomicalm Helpline, PetBuzz newsletter Numerous lectures given: AVMA, AVSAB, CE courses, local, regional, and university groups. Awards: Research fellowship (Novartis Animal Health), Veterinary Medical Graduate Assistantship, University-wide Fellowship, Phi Kappa Phi, Golden Key, Phi Beta Kappa

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## Member at Large

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### Margaret Duxbury

Dr. Margaret M. Duxbury earned her DVM from the University of Minnesota in 1981. Since that time she has been in small animal practice in NW Wisconsin and Minneapolis, MN. An avid horse enthusiast, she became committed to the field of behavior after attending a natural horsemanship clinic where she says "everything I thought I knew about working with animals came apart in an afternoon." Dr. Duxbury is currently pursuing a non-conforming residency under ACVB Diplomate Dr. R.K. Anderson. She has served AVSAB for the last two years by working on the program committee for the annual meeting. She lives with her husband and three children in rural Amery, Wisconsin.

### Donya Dunlevy

Dr. Dunlevy is a small animal, exotics, and wildlife practitioner in Dublin, Ohio. The clinic where she works is Animal Care Unlimited, employing five doctors and about 20 registered technicians. She attended veterinary school at Ross University and did a one year clinical at Kansas State University. Donya has been interested in behavior medicine since she was in veterinary school and studied with Dr. Kathy Gaughan from Kansas State University. They concentrated on cats and dogs,

however, a small percentage of horses also. When she started working in Ohio, there were very few people interested in behavior, so that gave her a great opportunity. She works closely with a dog training class offered in the clinic and average about 2 behavior cases a week. The case are mostly cats and dogs but also a lot of birds. Donya's plans for the future are to expand her behavior cases and become the best in the area.

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## Secretary-Treasurer

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### Steven Feldman, DVM

Dr. Feldman have been in private clinical veterinary practice in Clinton, Maryland since 1981. He has always been interested in behavior, having majored in psychology as an undergraduate. Steve does behavior consultations both in Maryland and at the Friendship Hospital for Animals in Washington, DC. He often visits the Behavior Clinic and participate in behavior rounds at the Veterinary Hospital of the University of Pennsylvania. Presently Steve is enrolled in psychology courses at the University of Maryland, College Park and is planning a study to begin soon that will evaluate the effects of an herbal psychotropic in a canine anxiety disorder. He has been involved with the American Veterinary Medical Association's Network of Animal Health (NOAH) since 1995 and is one of the Advisory Team Leaders, often fielding questions in the Behavior Discussion Group. Dr. Feldman received my bachelor's degrees and DVM at the University of Illinois (1972, 1975, 1977) and has been a Maryland resident since 1977. He is past president and treasurer and now vice president of the Prince George's County VMA, and is on the board of directors of the Maryland VMA. Steve also co-chairs Maryland VMA Informatics Committee and helped to set up their website.

# Welcome New Members!

(R)=Regular, (S)=Student,  
(SU)=Subscription, (AF)=Affiliate

**Ms Jill Sullivan (S)**  
7751 Biloxi Cove  
Millington TN 38053

**Dr Lynn Murrell (R)**  
P.O. Box 98 So.  
Woodstock VT 5071  
(802) 457-3135

**Dr Laura McLain (R)**  
55 E. Miller Ave.  
Salt Lake City UT 84115  
(801) 487-1321

**Dr Alissa M Kulaw (R)**  
337 Steko Ave  
Rochester NY 14615  
(716) 458-5482

**Dr Terry Marie Curtis (R)**  
115 N.E. 9th St. Apt. #3  
Gainesville FL 32601  
(352) 367-8241

**Dr George L. Balster (R)**  
Bethany Animal Hospital  
2400 Bethany Rd.  
Sycamore IL 60178  
(815) 756-8925

**Ms Amanda K Walter (S)**  
3601 SW 31st Dr., Apt. 6B  
Gainesville FL 32608  
(352) 379-9674

**Dr Felicia Rehage  
Wilhelmster(R)**  
13 Bad Nenndorf  
31542 GERMANY  
+49 5723-2000ex916453

**Ms Deborah L'Heureux (S)**  
7343 Meadowview Ave  
Baton Rouge LA 70810  
(225) 761-0561

**Ms Nikki Palermo (S)**  
4194 Burbank Dr., Apt. #9  
Baton Rouge LA 70808  
(225) 761-8889

**Ms Jennifer Taitt (S)**  
1108 Mount Tabor Rd  
Blacksburg VA 24060  
(540) 961-6513

**Mr Nathan Klocke (S)**  
65 Redbud Estates  
Manhattan KS 66502  
(785) 776-5716

**Ms Leslie Auguinick (SU)**  
Dept of Clinical Studies  
Medicine Section VHUP  
3850 Spruce Street  
Philadelphia PA 19104-6010  
(215) 898-3347

**Dr Jennifer Sweinhart (R)**  
47 Olentangy St  
Powell OH 43003  
(614) 436-9922

**Dr Laurie Schultze (R)**  
6753 Axtel Dr  
Canal Winchester OH 43110  
(614) 834-9013

**Dr Kelly Georgeou (R)**  
2011 W. Hazelwood St.  
Phoenix AZ 85015  
(603) 864-9547

**Dr Christopher J. Pauly (R)**  
25 W 571 Lake St.  
Roselle IL 60172  
(630) 894-6220

**Dr Ulrich Berger (R)**  
Thunstrasse 43 CH-3510  
Konolfingen Switzerland  
-317912686

**Dr Larry F Bosma (R)**  
43619 N. Sierra Hwy.  
Lancaster CA 93534 (661)  
945-7906

**Ms Laura A. Surovi (S)**  
5810-733 Waterford Valley  
Crescent  
Raleigh NC 27612  
(919) 510-8737

**Ms Trisha R. Kvasnica (S)**  
6236 Cardinal Lane  
Manhattan KS 66502  
(785) 565-0621

**Dr Michele Tulis (R)**  
71 Milo White Rd.  
Jericho VT 5465  
(802) 899-3375

**Dr Linda Goodloe (AF)**  
345 West 70th St. #6D  
New York NY 10023  
(212) 787-9378

**Dr Aarti Sabhlok (R)**  
Metropolitan Veterinary Hospital  
1053 S. Cleveland-Massillon Rd  
Akron OH 44321  
(330) 666-2976

**Ms Kirsten Love (S)**  
1140 Grand Ave  
St. Paul MN 55105-2628  
(612) 861-3268

**Dr Teresa Miller (R)**  
848 Cliff Ave  
Burnaby BC V5A 2J5  
CANADA  
(604) 291-9981

**Ms Denise Upchurch (S)**  
1120 Bowling Green Dr.  
Fayetteville NC 28304  
(910) 426-0570

**Dr Bernadine Bishop (R)**  
Bangor Vet Hosp  
1648 Broadway  
Bangor ME 4401  
(207) 947-7103

**Dr Cheryl Ayscue (R)**  
8840 SW 45th Blvd  
Gainesville FL 32608  
(352) 376-4503

**Dr Katherine M Francis (R)**  
7710 Twin Pines Ct  
Orlando FL 32819  
(407) 351-4251

**Dr Monica Daniel (R)**  
21 Canterbury Ct.  
Lititz PA 17543  
(717) 627-6773

**Dr Alvin L Griffith (R)**  
Oak Forest Veterinary Clinic  
2120 W. 34th St  
Houston TX 77018  
(713) 682-6351

**Dr Lori White (R)**  
25325 Children  
Elkmont AL 35620  
(256) 233-1515

**Dr James Hornbuckle (R)**  
Disque Animal Clinic  
#9 Glynn Ave  
Brunswick GA 31520  
(912) 267-6002

**Dr Carolyn Kutzer (R)**  
Freed Veterinary Hospital  
1250 N. King St  
Hampton VA 23669  
(757) 723-6049

**Dr Tom Jatniels (R)**  
12049 Buelow Rd  
Amherst WI 54406

**Dr Tracy Hawthorne (R)**  
Lake City Animal Hospital  
220 Professional Dr  
Lake City FL 32025  
(904) 755-02336

**Dr Herb Hardwick (R)**  
20010 Clay St.  
Hebron IN 46341  
(219) 696-6471

**Dr Karl J Heldrich (R)**  
20212 Middletown Rd  
Freeland MD 21053  
(410) 357-8078

**Dr Tracy L Chinn**  
Spoon River Animal Clinic (R)  
3098 N Main  
Canton IL 61520  
(309) 647-6800

**Dr Tom Schwarzer (R)**  
Ottawa Veterinary Hospital  
900 Boyd Ave  
Ottawa ONT K2A 2E3  
CANADA  
(613) 725-1182

**Ms Kasandra Blann (S)**  
5009 Hermitage Dr  
Raleigh NC 27612  
(919) 881-4447

**Dr Kelly Doucette (R)**  
490 Pinkerton Rd  
Wexford PA 15090  
(724) 934-8155

**Dr Sheila King (R)**  
904 E. Irving Park Rd  
Streamwood IL 60107  
(630) 837-4400

**Dr Patrick Smith (R)**  
2525 Youngfield St  
Golden CO 80401  
(303) 237-9542

**Dr Cameron M Jones (R)**  
Amazon Park Animal Clinic  
725 E. 25th  
Eugene OR 97405  
(541) 485-0161

**Dr Chelly Zahusak (R)**  
Defiance Veterinary Clinic  
105 Timothy St  
Defiance OH 43512  
(419) 782-7597

**Dr Stephanie Weddle (R)**  
225 Lake Club Court #404  
Charlottesville VA 22902  
(804) 245-9722

**Dr Dawn Burke (R)**  
Suffield Vererinary Hospital  
577 East St South  
Suffield CT 6078  
(860) 668-7867

**Dr Nancy Dreschel (R)**  
207 Morningside Circle  
State College PA 16803  
(814) 867-9070

**Ms Miranda Logan (S)**  
582 Queen Street  
Charlottetown PEI C1A 908  
CANADA  
(902) 894-8523

**Dr Stephanie A Daverio (R)**  
Williamsport West Veterinary  
Hospital  
3537 West Fourth St  
Williamsport PA 17701

**Dr Kathleen Kolar (R)**  
16565 State Rd  
N. Royalton OH 44133  
(440) 230-1534

**Dr Carolyn Stanford (R)**  
Nassau Veterinary Clinic  
P.O. Box 400  
Nassau NY 12123  
(518) 766-2636

**Dr Beth Cochran (R)**  
6409 Chartee Oak Drive  
Pleasant Garden NC 27313  
(336) 676-0209

**Dr Linda Register (R)**  
10959 Brightside Drive  
Tampa FL 33624  
(813) 908-8361

**Ms Carrie Crouse (S)**  
2689 Cranford Rd  
Columbus OH 43221  
(614) 538-9368

**Dr John T Kristy (R)**  
181 Kings Hwy  
Fairfield CT 6432  
(203) 367-4475

**Dr Paul W Buck (R)**  
15090 Louisville St. NE  
Minerva OH 44657  
(330) 823-0676

**Dr Carl Flinkstrom (R)**  
Lunenburg Veterinary Hospital  
109 Massachusetts Ave  
Lunenburg MA 1462  
(978) 345-2623

**Dr Debra E Krupa (R)**  
15 Laga Court  
Ringoes NJ 8551  
(609) 333-9353

**Dr Claudio Gerzovich (R)**  
Lis Jose' Maria Moreno  
1073 Buenos Aires Haedo 1706  
ARGENTINA 54114-6591958

**Dr Kathleen Heneghan (R)**  
8035 W. Grand Avenue  
River Grove IL 60171  
(708) 456-6700

**Dr J. Michelle Posage (R)**  
New England Veterinary  
Behavior Assoc.  
8-A Camellia Place  
Lexington MA 2420  
(781) 862-5060

**Dr Kendra Seebohm (R)**  
67 San Luis Rd.  
Gansevoort NY 12831  
(518) 587-3115

**Dr Nikki Kelly (R)**  
640 N. Wilson Rd  
Columbus OH 43204  
(614) 276-5479

**Ms Karen Censoprano (S)**  
4564 Covenant Court  
Gurnee IL 60031  
(847) 662-8785

**Dr Nancy E Kicherer (R)**  
RR 1 Box 11  
Madison VA 22727  
(540) 948-6876

**Dr David E Thoma (R)**  
5818 Maplecrest Rd  
Fort Wayne IN 46835  
(219) 485-1602

**Dr Kit Walter (R)**  
4970 NW Radial Hwy  
Omaha NE 68104  
(402) 553-3900

**Dr Cheryl Skaletski (R)**  
1475 Lime Kiln Rd.  
Green Bay WI 53411  
(920) 468-5800

**Dr Deborah Ramsey (R)**  
8876 East D Avenue  
Richland MI 49083  
(616) 629-5069

**Dr Susan Plaza (R)**  
1112 Oakridge Dr. Suite 111  
Ft. Collins CO 80525  
(970) 206-1868

**Dr Tara Ewaschuk (R)**  
**54 Lexington Close**  
Lacombe Alberta T4L 2J3  
CANADA  
(403) 782-0459

**Dr Alan Shanker (R)**  
43 St. John St.  
Goshen NY 10524  
(914) 294-5044

**Dr Kevin J Soncrant (R)**  
5859 Navarre Ave  
Oregon OH 43618  
(419) 836-7766

**Dr Kathy Oldfather (R)**  
11468 N 150 E  
Macy IN 46951  
(219) 382-2510

**Dr Patti D Buelo (R)**  
5803 Sandhill Dr  
Middleton WI 53562  
(608) 833-4187

**Dr Martha Jane Badura (R)**  
4 Dwelling House Ct.  
Catonsville MD 21228  
(410) 788-5238

**Dr Eric Orr (R)**  
4003 78th St. W  
Bradenton FL 34209  
(941) 761-9362

**Ms Shauna Strong (S)**  
70 Edvard St  
Charlottetown PE CIA 5E1  
CANADA  
(902) 892-2426

**Dr William Hradil (R)**  
375 W. State St  
Salem OH 44460  
(330) 332-1880

**Dr Karen M Updike (R)**  
6616 Wyndham Drive  
Kalamazoo MI 49009  
(616) 353-4939

**Dr Mark P Voss (R)**  
115 South Main Street  
Chatfield MN 55923  
(507) 867-3610

Dr. Laurie Martin  
201 Cedarbrook  
Naperville, IL 60565

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