



University of Vermont, College of Arts and Sciences Department of Biology Newsletter

Fall 2012

Dr. Goodnight Travels to Brazil



(left to right, Reinaldo Brito, James Cheverud, Charles Goodnight, Jason Wolf).

The picture was taken at Iquacu Falls

In September, Professor Charles Goodnight spent two weeks in Brazil. The first week was spent in Sao Carlos. James Cheverud (Washington University Medical School, St. Louis), Jason Wolf (University of Bath, Bath, UK), and Dr. Goodnight gave a one week master class on quantitative genetics and gene interaction. Topics covered included the effects of dominance, epistasis, maternal effects, and genomic imprinting on evolutionary processes. In the second week they went to Iguacu Falls for the Brazilian Congress of Genetics. Here Jason Wolf, Gabriel Marroig (University of Sao Paulo, Brazil) and Dr. Goodnight participated in a symposium on evolution in structured populations. James Cheverud gave a keynote address on the genetics of obesity and diabetes.



Dr. Nick Gotelli was prominently featured in a recent episode of "Emerging Science" on VPT. To see the show please click [HERE](#)

Dr. Ingi Agnarsson Instilling Curiosity About the Environment and Science



Our 'CarBio' team spent this spring and summer visiting the two largest islands in the Caribbean, Cuba and Hispaniola, looking for our arachnids – spiders, scorpions, and kin. The team is beginning to uncover fascinating wealth of hitherto unknown dimensions of diversity across islands, and in our 'islands within islands' the extensive cave systems of the Caribbean. In Dominican Republic we spent a week focusing on educational outreach targeting underprivileged Dominican and Haitian children schools and orphanages. There within a single classroom, children would range from 2-18 years old, a challenging mix. We'd begin each day with a brief survey to assess the children's initial comprehension of biodiversity, arachnids and science, followed by a presentation, and then a trip to the field collecting anything with eight legs. Most of the children, no matter age or gender, excitedly collected, searching in every shrub and under every rock, no doubt providing a new perspective to their familiar schoolyard or nearby bosque (forest). At the end of the day we worked with the children to create a simple field guide using pictures they took the same day, and their description of the habitat and physical characteristics of the animal. These field guides were printed, laminated, and left with the school. To each school it was a short visit, but one that we hope made for a memorable day, and may instill a bit of curiosity about their environment and science.

The rest of our six weeks we spent doing intensive fieldwork at numerous sites, working day and night. After six weeks in the field, the group was excited to return to creature comforts, one student blogging "We are all leaving safe and sound, though our final tally of mishaps was 3 escaped scorpions later found in the car, the bed and Trevor's pants, 5 flat tires, 15 wasp stings, 2 sea urchin calamities, a jellyfish sting, a case of whooping cough, a full body rash, a sprained ankle, a stubbed toe, 157 cactus spines, countless unfortunate bowel movements, and several liters of blood lost to mosquitoes." Nothing beats the field for exciting scientific findings, enriching cross cultural experiences, and the kind of discomfort that makes you urge for home, yet makes you chuckle and long to return to the field once more. For more information click [HERE](#)

With Climate Change, U.S. Could Face Risk From Chagas Disease



A close look at kissing bugs revealed to biologist Dr. Lori Stevens that a surprising number of them feast on people. Her new study, published by the Centers for Disease Control, shows that the bugs might bring a little-known -- but dangerous -- tropical disease north into the U.S.

For complete story by Joshua E. Brown, UVM, click [HERE](#)

Centers for Disease Control and Prevention (CDC) Article, click [HERE](#)

Dr. Lori Stevens, Recipient of The Jackie M. Gribbons Leadership Award



The Vermont Women in Higher Education (VWHE) announced the 2012 annual award winners on October 4 at the Middlebury Inn in Middlebury, VT. Dr. Lori Stevens received The Jackie M. Gribbons Leadership Award. This award is presented to a woman who has demonstrated leadership ability, served as a model and mentor, developed innovative programs, and contributed significantly to the institution and profession. Her colleagues write that she “epitomizes the characteristics one seeks in this leadership award: she is an accomplished and very active researcher, she is an innovative teacher/mentor, and her dedication to her students, advisees and service at both the university and the national level is truly exemplary.”

VWHE is a statewide organization dedicated to serving women in higher education at all professional levels. Three awards are presented to women who exemplify excellence in their roles in higher education. For more information please visit the VWHE website: www.vwhe.org for more details.

Dr. Saha's Publication in *Biochemical Journal*



Dr. Rima Saha (former Biology Ph.D. student) recently had part of her dissertation work published in the *Biochemical Journal*. Rima identified a novel negative control mechanism regulating a signaling pathway hyperactive in most cancers. Rima is currently a postdoctoral associate at Dartmouth Medical School. Rima also had another publication of sorts as she recently gave birth to a baby boy, Ishan. Congratulations, Rima!

Saha M. Carriere A, Cheerathodi M, Zhang X, Lavoie G, Rush J, Roux PP, **Ballif BA.** RSK phosphorylates SOS1 creating 14-3-3-docking sites and negatively regulating MAPK activation. *Biochemical Journal*. 2012. Oct 1;447(1):159-66.



Professor Jim Vigoreaux presented a talk at the Annual Main Meeting of the Society for Experimental Biology, held in Salzburg, AUSTRIA, June 29-July 2, 2012. The title of the talk was "Separate evolution of flightin domains reflect functional duality in flight and courtship in *Drosophila*".

FACULTY PUBLICATIONS

- Goswami T, Li X, Smith AM, Luderowski EM, Vincent JJ, Rush J, **Ballif BA**. Comparative phosphoproteomic analysis of neonatal and adult murine brain. *Proteomics*. 2012 Jul;12(13):2185-9.
- Saha M, Carriere A, Cheerathodi M, Zhang X, Lavoie G, Rush J, Roux PP, **Ballif BA**. RSK phosphorylates SOS1 creating 14-3-3-docking sites and negatively regulating MAPK activation. *Biochemical Journal*. 2012. Oct 1;447(1):159-66.
- Anjum R, Pae E, Blenis J, **Ballif BA**. TPCK inhibits AGC kinases by direct activation loop adduction at phenylalanine-directed cysteine residues. *FEBS Letters*. 2012. In Press.
- Goodnight, C. J.** 2012. Defining the Individual. In: From Groups to Individuals; Frédéric Bouchard and Philippe Huneman eds. In Press, MIT Press.
- Mitteldorf, J, **C. J. Goodnight**, 2012 Post-Reproductive Life Span and Demographic Stability, In press *Oikos*
- Gotelli NJ**, Ellison AM, **Ballif BA**. Environmental proteomics, biodiversity statistics and food-web structure. *Trends in Ecology and Evolution*. 2012 Aug;27(8):436-42.
- Liu, Q, P. Chen, K. He, **C. W. Kilpatrick**, S-Y. Liu, F. Yu, and X. Jiang. 2012 Phylogeographic study of *Apodemus illex* (Rodentia: Muridae) in southwestern China. *PLoS ONE*, 7(2):e31453.
- Schall, J. J.** 2012. Book Review: Hemoparasites of the Reptilia: color atlas and text, Sam Rountree Telford, Jr., CRC Press (2009). *Copeia* (in press)
- Lodh, N., **Stevens L.**, Kerans B. 2012. The parasite that causes whirling disease, *Myxobolus cerebralis*, is genetically variable within and across spatial scales. *Journal of Eukaryotic Microbiology* 59. In Press.
- Van Houten, J.L.**, Yano, J., Valentine, M.S., **Ballif, B.** and Saha, M. Proteomic analysis of the Ciliary Membrane of *Paramecium*, *AChemS*, California, April 2012.

GRADUATE STUDENTS

Yainna Hernáiz-Hernández Receives Poster Award at Social Insect Conference



The Ant Lab in front of UVM research posters: from left to right, Andrew Nguyen, Ioulia Beshpalova, Dr. Sara Helms Cahan, Mike Herrman, and Yainna Hernáiz-Hernández

The social arthropods (ants, bees, wasps, termites, spiders, and more) are some of the most numerically and ecologically dominant species on earth, making them ideal model systems for studying everything from social evolution to species interactions to adaptation to climate change. The Biology department has a growing number of faculty and students studying social insect biology, and this year Associate Professor Sara Helms Cahan, graduate students Mike Herrmann, Andrew Nguyen, and Yainna Hernáiz-Hernández, and research volunteer Ioulia Beshpalova attended the biennial conference of the North American section of the International Union for the Study of Social Insects at Haw River State Park in Greensboro, NC. The small size and cozy venue of this meeting makes it a prime opportunity to network with colleagues at every stage of their careers, from beginning graduate students to internationally renowned senior scientists. Our students all presented their work at one of the poster or oral presentation sessions, and Yainna Hernáiz-Hernández, a second-year graduate student in Dr. Helms Cahan's lab, was recognized with a third-place award in the poster competition for her poster, entitled "Determining the Abundance and Diversity of Fungi in the Harvester Ants." Congrats to Yainna and to everyone for their hard work and research accomplishments.

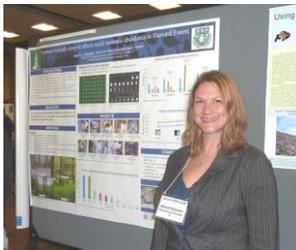
Alli Neal Attended the American Society of Parasitologists Annual Meeting in Virginia



This summer, PhD student Alli Neal attended the American Society of Parasitologists annual meeting, which was held in Richmond, Virginia this year. Alli works with Dr. Joseph Schall, and her research focuses on how natural selection shapes the proportions of male and female malaria parasites present in infections. At the meeting, she presented her findings from a computer model she has been developing to determine how the efficiency of transmission from one host to another may affect the sex ratios favored by selection.

While there, Alli met some former UVM students who Dr. Schall inspired to pursue great careers studying parasites. Pictured, from left to right, are Alli Neal, Melanie Lloyd (former UVM undergrad, now a PhD student at the University of Otago in New Zealand), Dr. Ashleigh Smith (former UVM undergrad working with Dr. Schall, now a Visiting Assistant Professor at Hamilton College in Clinton, NY), and Dr. Susan Perkins (former UVM PhD student with Dr. Schall, now an Associate Curator and Professor at the American Museum of Natural History in New York).

Allyson Degrassi Attends Conference in Colorado



Ally Degrassi went to Estes Park, CO in September for a weeklong conference where she presented a poster on her summer research, “Eastern hemlock removal affects small mammal abundance at Harvard Forest” at the Long-Term Ecological Research-All Scientist Meeting. She also participated in a working group on “Foundation Species in North American Forests.”

Lucas Bernacki Presented a Poster at the NEPARC Conference



Luc Bernacki attended the 2012 North Eastern Partners in Amphibian and Reptile Conservation (NEPARC) Conference, held at the AMC Highland Center from July 24th through the 26th, where he presented a poster of his research “An Investigation of the Population Structure of *Apalone spinifera* in Lake Champlain”. The members of NEPARC range from state and federal wildlife biologists to policy-makers, university faculty, students, and representatives of conservation based NGOs. These partners in amphibian and reptile conservation meet annually on the regional level to discuss research and to collaborate across state borders for the benefit of herptiles. Bernacki says that he came away from the conference with many new connections and ideas which have served to benefit his research.

Samya Chakravorty Wins Poster Competition



Samya Chakravorty is a sixth year PhD candidate in the Department of Biology, planning to defend and finish his PhD by May 2013. Samya’s hometown is Kolkata, India. His poster, “To Sing or To Fly: Role of Muscle Proteins in *Drosophila* Mating and Flight Behaviors”, was the winner in the Graduate – Sciences category. Biology Professor and Department Chair Jim Vigoreaux is his advisor

Anne McHugh, “An Aspiring Evolutionary Biologist”



Left: Dominican Republic at sunset; Right: Red Rocks National Conservation Area outside Las Vegas Nevada

Anne McHugh joined the Department of Biology as a new Graduate Student this fall. Prior to arriving at the University of Vermont, she was doing field work with a team of scientists, including Dr. Ingi Agnarsson, her advisor, on a project on the island biogeography of the Caribbean. She used molecular phylogenetics of arachnid taxa to further understand the history of the region. She visited Cuba in March and April, and then travelled to the Dominican Republic to collect arachnids. She was in the Dominican Republic until July. Anne is an aspiring evolutionary biologist. She likes spiders, arachnids and arthropods. In her spare time she “climbs things, bikes, hikes, skis, takes pictures and eats.”

RECENT GRADUATE STUDENT PUBLICATIONS

Chakravorty, S. Wadja, M. and Vigoreaux, J. O. (2012) Analysis of mating song in *Drosophila* muscle mutants. (Invited chapter) In *Methods*, 56: 87-94. Benian, G. and Bernsteins, S., editors. Elsevier Journals Publishing.

Neal, A. T. and Poulin, R. (2012). Substratum preference of *Philophthalmus* sp. cercariae for cyst formation under natural and experimental conditions. *Journal of Parasitology* 98: 293-298. ([Pub](#))

Valentine, M.S., Rajendran, A., Yano, J., Weeraratne, S.D., Beisson, J., Cohen, J., Koll, F., Van Houten J. (2012) paramecium BBS genes are key to presence of channels in Cilia. *Cilia*, 1:16 ([Pub](#))

Van Houten, J.L., Yano, J., **Valentine, M.S.**, Ballif, B. and Saha, M. Proteomic analysis of the Ciliary Membrane of *Paramecium*, AChemS, California, April 2012.

Vick, J.S., and Delay, R.J. (2012). ATP excites mouse vomeronasal sensory neurons through activation of P2X receptors. *Neuroscience*, 220-:341-350. ([Pub](#))

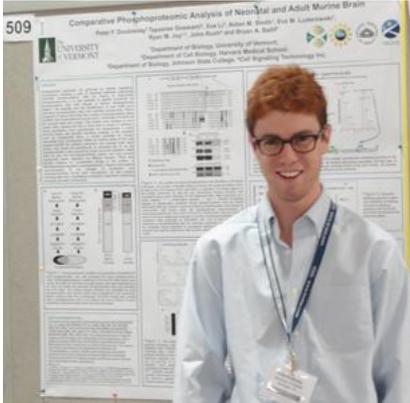
UNDERGRADUATES



Jen Grauer is from Baltimore, Maryland and is a Zoology & Environmental Sciences double major with a minor in Philosophy. Her poster was the winner in the Undergraduate – Sciences category in the College of Arts and Sciences Presidential Poster Competition this October. The title of her poster was “Ecological Niche Modeling of *Pogonomyrmex* Harvester Ant Lineages”. Jen’s advisor on the poster was Associate Professor of Biology Dr. Sara Helms Cahan.

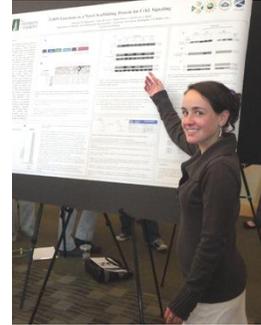
Jen also won a SACNAS poster award. The poster is titled “Urban landscape influences on the diet and foraging behavior of fishers (*Martes pennant*)”. This poster is part of her current work for her senior Honors College thesis with Dr. James Murdoch in Rubenstein and Dr. Bill Kilpatrick in Biology.

Students Present their Research at the International Human Proteome Organization Conference

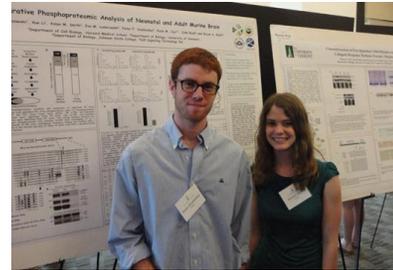


Peter Doubleday, senior undergraduate Biology major, presented some of his research on signaling mechanisms of brain development at the HUPO conference in Boston in September. Co-authors of the work included Biology Ph.D. student Ryan Joy, and former Ballif lab undergraduates Aidan Smith and Eva Luderowski. Posters from finishing Biology Ph.D. student Bior Bior and former Ph.D. student Mujeeb Cheerathodi (now a postdoc at MD Anderson) were also presented. Also joining Peter at the conference were his advisor Bryan Ballif and Biology Ph.D. student Marion Weir.

Biology Department Research Prominent at UVM's Student Research Day



Miranda Redmond presented her Biology honors thesis research at UVM's 2012 Student Research Conference. After graduation Miranda did an internship at Pfizer and is currently applying to PhD programs



Biology major Peter Doubleday and Biology Ph.D. student Marion Weir presented their research at the Student Research Conference. The research of all three students involved understanding cell signaling mechanisms involved in brain development.

STAFF

Susan Williford Joins the Department of Biology



Our new Business Manager, Susan Williford, joined the Department of Biology in August 2012. Prior to joining us, she worked with the UVM McNair Scholars Program. Before coming to UVM, Susan was a Traffic Analyst and a Hydrogeologist with local consulting engineering firms.

Susan enjoys sailing and boating, travel, cooking, reading, and music. She is a Library Trustee at the Dorothy Alling Memorial Library in Williston. She lives in Williston with her husband and has two children. Welcome Susan!

Leigh Sweet, New Lab Technician in the Department of Biology



Leigh Sweet graduated from UVM in 1988 with a BA in Zoology and a minor in Chemistry. Since graduation he has worked as a Lab Technician for the College of Medicine in various departments. For the last 10 years he worked in the Department of Ob/Gyn and Reproductive Sciences. Their research looked at the role of TLR receptors in H1N1 influenza infected mice.

Leigh lives in South Burlington with his wife Ellen, who is a Physical Therapist at Fletcher Allen Healthcare, and 2 daughters. Jennifer is a senior at UVM and Laura is a senior at South Burlington High School.

Over the last 10 years, Leigh has volunteered with Lyric Theater and Stowe Theater Guild, as a Lighting Designer and Special Effects Coordinator. Between Lyric shows, he enjoys woodworking, photography, reading and spending time with his family.

Welcome Susan Fuller!
Supply Facility Coordinator for the Department of Biology



Susan Fuller supported research at UVM as a Research Technician in several departments in the fields of Type II Diabetes, Stroke, Targeted Cancer Therapy using Phage-Display and toxic Cyanobacteria.

Susan's most recent position was in the Rubenstein Ecosystem Science Laboratory (RESL), a water quality research facility at the Burlington Waterfront, in the Rubenstein School of Cyanobacteria Monitoring Project.

Susan is very grateful to Ed McIntyre (former Supply Facility Coordinator, and currently the VGN Business Support Generalist) and Mark Biercevicz (Lab Technician), "for keeping things rolling during the long transition period, which allowed me to finish up critical field work for my RESL project".

Susan Fuller lives on the eastern slopes of the Green Mountains with her husband and bird dog Tuck. She enjoys sailing, snowshoeing and gardening. *Welcome Susan!*

ALUMNI NEWS

Dr. Wayne M. Johnson and the Birdneck Animal Hospital in Virginia Beach



Dr. Wayne Johnson graduated from UVM in 1976 with a BA in Biology, received his MS at Rutgers and his veterinary degree (VMD) at the University of Pennsylvania. He is presently the owner/veterinarian at [Birdneck Animal Hospital](#) in Virginia Beach. (he says they don't treat bird necks, the hospital is on Birdneck Road!).

Dr. Johnson especially enjoys surgery, educating owners and children on how to keep their pets healthy, the fun of puppy and kitten visits, and making elderly patients feel like puppies and kittens again. He has had post graduate training in endoscopy, ultrasound, laser surgery and reptile medicine.

Dr Johnson is a member of the Noblemen, a philanthropic organization which raises money for special needs children in the Tidewater area. He is also a member of the American Veterinary Medical Association. He loves to surf fish and is a member of the Virginia Beach Anglers Club. He also enjoys writing. He recently finished his first Fantasy novel, which he hopes to have published. The Johnson's have a Golden Retriever named "Chloe".

Each month the staff at Birdneck Animal, publicly acknowledge one of their many wonderful patients by sharing their heartwarming story with others by naming a pet their Pet Of The Month. Dr. Johnson states that the hospital will make a donation, in the name of each of the Pets Of The Month, to Noblepets. What is Noblepets? Noblepets is a new branch of the Noblemen Organization spearheaded by Dr. Johnson. Dr. Johnson and the Noblemen have created this wonderful platform as a way to allow more individuals a way of giving back to the community, while at the same time publicly acknowledging their pets, and telling the world why their pet is noble. Monies raised through Noblepets go toward helping to provide local children and veterans who are disabled with specially trained aid dogs to make their lives less difficult. For more information visit [Noblepets](#)

Noah Levit and the Himalayan Rescue Association

In a glacier carved valley, along the Marsyangdi River, I sit and reflect in the village of Manang at nearly 12,000 feet above the surface of the sea. The air here is thin, tucked into the Annapurna mountain range, and I find myself surrounded by behemoth peaks. Even at this height I gaze upward in every direction at the ever looming Himalaya. They stand above shoulder to shoulder in every direction, and I feel like a child surrounded by the protective figures of a mother, father, and family. And through the village silence, broken by the occasional crack and thunder of a calving glacial ice block, I reflect on the path that led me here.



Noah Levit (left), Nepali grandfather and grandmother of baby that Noah and his wife (right) Dr. Chi Truong delivered 20 minutes before this picture was taken

As a Biology major and graduate of UVM College of Agriculture and Life Science, UVM harnessed in me a strong relationship with the outdoors and the natural world. Through academics I came to understand the relationships between the biology, botany, geology, and ecologic systems. And through the bountiful outdoor recreational opportunities and like-minded people, I came to understand and appreciate our precious natural world on a deep and rich level.

When I chose my career path, it was on a very practical level. Although a somewhat apocalyptic view, I wanted a skill that would be useful no matter what happened in the world: if the economy crashed, if money became worthless, if there was war, if the world as we know it were somehow turned upside-down. I wanted to develop a skill that would remain useful as long as us human beings continued to walk the earth. A skill that would be useful at just about any time, anywhere in the world. That practicality is what led me into the field of Emergency Medicine.

As an Emergency Medicine physician, I draw strongly on my background in biology and microbiology, chemistry, biochemistry, and genetics. I remember fondly the days of studying these subjects in the nearly magical setting of Burlington, Vermont. And as I racked up miles and experience in the outdoors, I fostered an interest in wilderness and travel medicine. This has all culminated in a season of work with the Himalayan Rescue Association.



Annapurna I at 26,545 feet

The Himalayan Rescue Association is a volunteer non-profit organization with an objective to reduce casualties in the Nepal Himalayas. Many accidents and injuries occur among visiting climbers and trekkers due to the extreme altitudes. Further, the HRA has always provided free or nearly free healthcare to the local people living in the region. This is essentially the only source of western medical care for the people, and they are very grateful. Service has even been extended to animals when possible! Thus, the HRA has been able to increase the safety of the trekkers and climbers, encouraging tourism, which boosts the Nepalese economy, and also use the donations and charges to the foreigners to provide much needed care to the local people. For more information click [HERE](#)

My wife and I are stationed now in Manang Village, nestled among the towering, monolithic Annapurna Range.

Cheryl J. Moody, Owner of Atlantic Shores Environmental Services, Ltd.



Cheryl Moody is the Owner and Principal Scientist of Atlantic Environmental Services, Ltd in Leland, North Carolina. Ms. Moody has over 22 years of environmental consulting experience and holds a Bachelors of Science degree in Biology from the University of Vermont and a Masters of Science degree in Environmental Science from the University of New Haven. Ms. Moody began her career in Honolulu Hawaii in 1990 and worked in New England prior to relocating to southeastern North Carolina in 1998. She started the Atlantic Shores Environmental Services (ASE) Company in July 2008.

ASE is a diverse environmental consulting firm specializing in transactional due diligence, facility management services, natural resource management, wetlands, brownfield redevelopment, underground storage tanks and general environmental consulting. ASE is a woman owned small business with a primary objective to provide quality services at a reasonable fee. ASE has been certified as a Historically Underutilized Business (HUB) by the North Carolina Department of Administration as a women owned business enterprise (WBE).

As an environmental consulting firm dedicated to conserving our natural resources, ASE functions as a paperless business. ASE estimates that their operation has reduced its paper consumption by 95%, and provides all correspondence and work product electronically, unless paper copies are specifically requested by the client. When paper products are necessary, ASE strives to utilize recycled paper.

ASE prides itself on its expertise, quality, responsive service, and competitive pricing. They operate in a highly competitive market and place great importance on providing high quality services to meet specific client needs in a cost-effective manner. The expectations of our clients are the basis for our high standards, and we maintain those standards throughout each project we serve. For more information click [HERE](#)



Dr. Mel Wolk, UVM class of 1956 (undergraduate in Zoology) and 1960 (Medical School), from Waverly, PA had three art pieces on display at the Davis Center as part of the October 6th Homecoming Celebration and 2nd Annual Alumni Art Exhibit. The works included abstract, contemporary and/or “found art”. The photo (left), of a giclee print on canvas of New York City Crunch, was one of the pieces selected for the exhibit at the Davis Center. The work is a photo collage of antique toys, and other objects in a photoshop composition. The works were on display throughout the month of October. [WOLK](#)

Kim Wendkos and “Paws and Possibilities”

Kim Wendkos, Owner of Paws and Possibilities, knew from an early age that she was drawn to animals and has had pets of all kinds.

Growing up in Northern Virginia, riding and showing horses were a big part of her life. Kim was ranked 3rd in the country while showing her horse, Harbor Bay, who has been mentioned in magazines as one of the best hunters to ever step foot in the show ring.



After graduating from the University of Vermont with a Bachelor of Science degree in Biology and a concentration in Psychology, Kim began her professional career as a marine mammal trainer. Kim had the opportunity to work with Atlantic bottlenose dolphins, California sea lions, harbor, grey, and harp seals, African penguins, and exotic birds! Spending most of her marine mammal training career at the National Aquarium in Baltimore as a Senior Trainer, Kim helped to teach new trainers how to train the dolphins.

Kim’s calm, confident demeanor make her interactions with animals remarkable to watch. In addition to working well with animals, Kim has a natural gift to relate well with people and has the ability to simplify complex ideas and present them in ways that enable people of all skill levels to understand and retain them. Both of these qualities have lead to a successful career working with dogs.



Kim enjoys spending time with her two children, Lindsey and Evan. Ballroom dancing is her favorite hobby and after competing at the Chesapeake Ball has declared salsa as her favorite dance! Kim has also competed in several triathlons, loves to read, and cherishes time spent with good friends! For more information click [HERE](#)



Alumni Update – The UVM Connection

Check out the online connection to communicate with Classmates from the past:

<http://www.alumni.uvm.edu/>

Ed Nemeth, Founder of the Cherish Foundation



Ed Nemeth is the father of Rebecca, a little girl who has severe cerebral palsy (CP) and whom was greatly helped by Hyperbaric Oxygen Therapies (HBOT).

Mr. Nemeth has a B.A. in Zoology from the University of Vermont where he graduated with College Honors for his research in "CNS Nerve Regeneration" at the University of Vermont Medical School, Department of Neurobiology under Dr. Richard Kreibel. Ph.D.

Since then, Mr. Nemeth attended the Northwestern University's Kellogg Graduate School of Management (KGSM) where he earned an MBA concentrating in Marketing and Finance. From there, Mr. Nemeth pursued an entrepreneurial career founding, growing and selling businesses in various industries.

Mr. Nemeth was an early skeptic of HBOT for his daughter, Rebecca, because of his formal neurobiology training noted above. He did not pursue HBOT for Rebecca, because he could not determine how HBOT could help her injuries. Mostly, he viewed the brain injuries under the anatomical models pursued in mainstream neurology, and not metabolically as is now shown to be essential for recovery of CNS function. However, when he came across established research demonstrating the reversibility of long term ischemia of the brain, he felt that HBOT must have some benefits and immediately brought Rebecca to Lauderdale-by-the-Sea for HBOT provided by Dr. Richard Neubauer. There, Rebecca made dramatic and life long improvements in just a few days. While still severely afflicted with CP, Rebecca's life had been dramatically improved, and she was able to better develop and overcome some challenges.

From this experience, Mr. Nemeth pursued a number of educational and legislative efforts to educate American Neurology and to help governments understand HBOT for pediatric brain injuries and to adhere to well defined legal responsibilities to brain injured children for reimbursement for HBOT.

To educate physicians, foundations, and parents, Mr. Nemeth sponsored the "*International Symposium for HBO for the CP and Brain Injured Child*" with Dr. Neubauer; he also sponsored the Debate on "*HBO for the CP and Brain Injured Child*" at the International Congress on Hyperbaric Medicine in San Francisco. Mr. Nemeth introduced legislation in California (AB 2763) which requires the State of California to reimburse for HBOT for brain injured children in accordance with Federal Medicaid regulations.

Mr. Nemeth sponsored the Discovery Channel Special called "*The Healing Chamber*" detailing all the mainstream medical applications of HBOT; he produced and published the DVD "*Healing Under Pressure*" featuring medical presentations on HBOT for brain injured children.

He also wrote chapter 7 of Dr. Neubauer's book "*Hyperbaric Oxygenation for the Cerebral Palsy and the Brain Injured Child*" and he supported Best Publishing's publication of the research textbook "*Hyperbaric Oxygenation for the Cerebral Palsy and the Brain Injured Child*" (proceedings from the 2nd International Symposium).

Mr. Nemeth has been active in helping children receive HBOT. He acquired the facility of the "*Hyperbaric Oxygen Clinic of Santa Monica*" and built the facility for the "*Hyperbaric Oxygen Clinic of Sacramento*". Both facilities specialize in helping brain injured children and adults. For more information click [HERE](#)

Yes! I am pleased to support the UVM Department of Biology and its commitment to excellence in education and research!

We are grateful for your contribution to the Biology Department of any amount

Please click the following link to make your donation to the Department of Biology

<https://alumni.uvm.edu/giving/support.asp>

Or send a check in the amount of \$_____ made payable to the University of Vermont. On the memo line of the check write "Department of Biology". Cut this box out and send it with the check.

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