

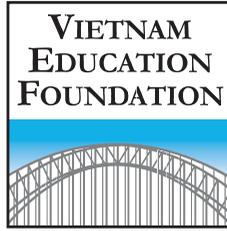
Excellence in Educational Exchange

Stories by VEF Fellows, Scholars, and Alumni



10th Anniversary
2003-2013

January 2013
Volume 1



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Preface

Experience – to be gained, shared, and acknowledged! The unique experiences that individuals have when they go abroad to another country to study, to do professional development, or to teach are truly life-changing. The journey begins with a small step, first of thinking about the possibilities and then getting the courage, conviction, and confidence to move forward. The journey continues as doors open, opportunities arise, and decisions are made---all a part of the flow of life.

As one of the special activities of VEF during our 10th anniversary celebration (2003 – 2013), I am proud to present the first volume of the newly developed VEF publication *Excellence in Educational Exchange: Stories of VEF Fellows, Scholars, and Alumni*. The stories herein are written by a few select program participants of the Vietnam Education Foundation (VEF), a U.S. Federal Government agency that bridges the United States and Vietnam through educational exchange.

These stories capture a moment, a feeling, a discovery, an insight, a challenge, an adventure, a success....stepping stones of the journey. I know that you will enjoy reading about these young men and women and their experiences related to VEF.

A sincere thank you to the authors of the stories herein for sharing a brief picture of some moments in their lives! And thank you to Dr. Peggy Petrochenkov for serving as Editor and Compiler of this first volume of VEF stories!

Enjoy your journey as you read about theirs!

Lynne A. McNamara, Ph.D.
VEF Executive Director

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Introduction

The Vietnam Education Foundation has been documenting the success of its Fellows from the very beginning of operations in 2003. We have supported 421 Fellows who have completed or are in the process of completing their graduate degrees in the United States. VEF has also awarded 38 Visiting Scholar grants to allow Vietnamese Ph.D. recipients to carry out projects of their choice at academic institutions in the United States. In addition, through the VEF U.S. Faculty Scholar program, 22 U.S. professors have taught full-semester courses on site in Vietnam or via real-time videoconferencing. This kind of overview, while factually correct, does not tell the full story. The narratives provided in this publication will grant the reader a far greater insight into the success of these talented VEF Fellows, Visiting Scholars, U.S. Faculty Scholars, and Alumni of all programs. Numbers are not everything.

Aside from the fact that these narratives are just plain interesting, the stories resonate and tell us much that is masked by the statistics. The statistics do not reveal how much preparation and hard work were required to prepare for an academic career, and in particular, how much effort went into preparation for graduate work and how much dedication was required to complete courses, projects, degrees, and theses. Statistics do not reveal all the hardships that individuals endured on the way to success. Without an understanding of the full context, it is easy to make the wrong assumptions. For example, completing a Ph.D. in the United States requires at least five years of study. On average, degrees in science and engineering are completed in six to eight years. Furthermore, in the fields of study supported by VEF, most Ph.D. recipients assume postdoctoral positions after completion of the degree in order to further refine their research specialties. VEF permits Fellows to engage in 18 months of this postdoctoral work (called Academic Training in the U.S. J-1 student visa nomenclature). In fact, Fellows who began a Ph.D. program in 2003 and completed any level of Academic Training only started returning to Vietnam around 2011. Programs of study toward a Master's degree are normally completed in two years, which helps to explain why more Master's degree

recipients than Ph.D. recipients have returned to Vietnam at this time. The ultimate success of the VEF Fellowship program will not be adequately measurable until well after 2018 when VEF's funding is slated to end. In truth, programs of this type scatter seeds that grow into trees in the future.

VEF leverages support for Fellows who study in the United States. VEF provides a grant of U.S. \$27,000 to each Fellow's U.S. institution (whether in a Master's or a Ph.D. program) for the first two years of study. In exchange, the university agrees to provide funding for all other expenses required for the student, including all tuition and fees, a stipend for living expenses, insurance coverage, and books and equipment. In addition, support by the U.S. university is promised until the Fellow completes the degree, even if study extends into the seventh or eighth year. This means that U.S. universities are providing nearly \$3 for every \$1 that VEF provides for Fellows, and possibly more. Ultimately, VEF is leveraging a substantial amount of support for Vietnamese students in U.S. graduate programs through its cost-sharing arrangements.

Vietnamese awardees come from all parts of Vietnam, not just the North and large cities, as is sometimes thought, and have overcome many difficulties to get where they are today. Phan Thi My Hanh provides an amusing story about almost missing the fellowship interview. Le Thuy Chau, Nguyen Anh Duc, and Nguyen Thi Hieu write about the personal struggles that they experienced before and while applying for a fellowship. Uniformly, they express their thanks to all the people and organizations that have supported them. Nguyen Huu Phuoc Nguyen who has not yet completed his degree and returned to Vietnam already established an organization in Vietnam, the Nghe Tinh Abroaders Association, that prepares Vietnamese students to study broad.

Those who return to Vietnam after earning degrees in the United States are finding employment in which they can use their training acquired in the United States. Laboratory facilities do exist and research that began in the United States can continue. This point is made in the stories written by Dr. Dang Huy Cuong and Dr. Pham Bao Yen. One Alumni Fellow, Dr. Tran Van Xuan, who did not remain in Vietnam, continues to make a strong contribution to Vietnam from France and plans to return to Vietnam at some point in the

future. Finally, one of the U.S. Faculty Scholars, Dr. Lee H. MacDonald outlines the surprising spin-offs that have resulted from his on-site teaching program in Vietnam.

The stories that follow come from many sources. Some were submitted for a story contest for the 2011 and 2012 VEF Pre-Departure Orientations, when all the new VEF Fellows and Visiting Scholars prepared for their travel to, and their study in, the United States at a five-day meeting organized by VEF. Other stories were solicited from Fellows and Scholars. The final reports that were submitted by VEF Visiting Scholars and U.S. Faculty Scholars at the end of their programs also provided wonderful material for stories. In truth, the narratives you will read here are just a beginning, the tip of the tip of the iceberg. Other editions will follow, and we welcome submissions from all of our Fellows and Grantees as well as these same individuals when they become our VEF Alumni.

Editor and Compiler
Peggy Petrochenkov, Ph.D.
VEF Program Officer

A few textual notes: Fellowship programs use the term “cohort” to describe all the Fellows and Scholars who have received awards during the same year. Fellows and Scholars of each cohort meet each other at the Pre-Departure Orientation and at conferences, so often identify with each other. Alumni are defined as those who have completed their academic or teaching programs under VEF support. Finally, the Vietnamese names appear in Vietnamese order (last name, middle name, first name), but the names of U.S. professors appear as in the United States (first name, middle name, last name).

One Funny Moment

Phan Thi My Hanh

2012 VEF FELLOW

Seeking a Ph.D. in Civil Engineering at the University of Nebraska-Lincoln



*Phan Thi My Hanh, 2012 VEF Fellow,
University of Nebraska-Lincoln*

From the underground parking garage of a skyscraper in Ho Chi Minh City, I went upstairs to the ground floor of the building. There were other people in the parking lot walking upstairs too. In front of me were a father and a son, I guessed. They might not be going for an interview like me because no one comes to an interview wearing such casual clothes. What about the woman in neat, clean, and stylish clothes walking next to me? She probably came for an interview. That day, I had a very important interview for a fellowship, the VEF Fellowship, in this very building.

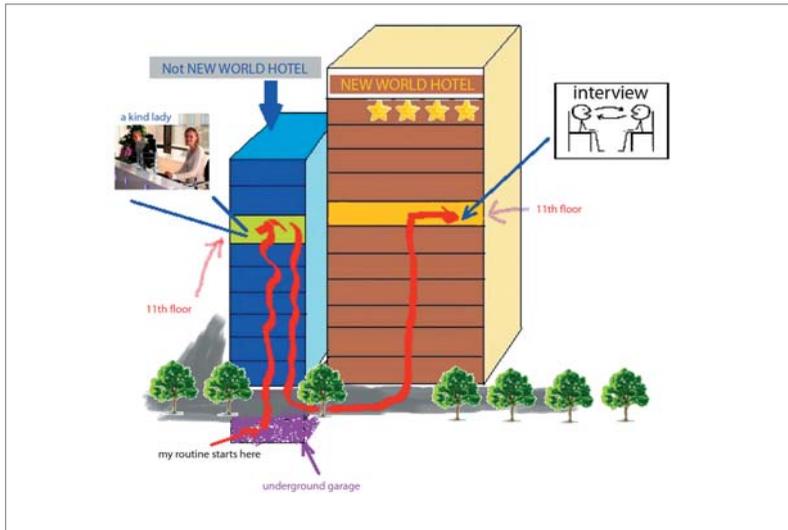
When I reached the ground floor, a bellboy standing next to the stairs asked me if I needed any help. I was a little bit confused at that moment because this place was so shiny and people were dressed so well. I had never been inside this building before so I spent a few seconds moving my eyes quickly from the nicely decorated high ceiling to every wall and corner of the lobby. Because of the air conditioning, the air here was more comfortable. I could see more people coming in and out by the

main entrance, but they did not seem too busy. After a while, I answered the man that I had business to do on the 11th floor. He then was kind enough to help me press the button for “11” inside the lift.

I could not see anyone when the lift door opened. Stepping out, I looked around for guidance, but I found nothing, only silence. I also felt a little nervous and wondered whether this was the 11th floor or whether I was in the wrong location. Then I opened my purse to check. The interview would be on the 11th floor of the New World Hotel at 9:30 a.m. It was 9:00 a.m. now. So this was it. I thought that I might ask someone for help. To the right, through the glass, I saw a pretty lady behind a reception desk. I entered and asked her politely about my interview. She was a very kind lady who smiled at me. She asked me what kind of interview I was looking for. I told her, and she said, “Sorry, I don’t know. Ah, maybe it’s in the New World Hotel, the very next building.” I was astonished by her response, like a person who has just awakened. I felt rather embarrassed, but I wanted to confirm that this was not the right place. “Oh, my Goodness!” I said to myself. How could I have made this mistake? Then, I remembered that the New World Hotel did not have a parking garage for motorbikes, so the guard at the New World Hotel had told me to drive to the next building to park. Then, I had gone upstairs directly from the underground garage, forgetting it was not the New World Hotel. (You can see a depiction of these events in the figure below). After recognizing my mistake, I thanked the nice lady and returned to the ground floor. I needed to leave this building in order to enter the lobby of the New World Hotel.

I was in a big hurry because I had spent a lot of time looking for the location of the interviews. On the way, I took out my hand phone from my pocket to check the time. Thank Goodness there was enough time to get there! I hoped that I could find the right place easily.

Finally, I was at the New World Hotel. I entered and quickly found the elevators. Because I was in a hurry, I didn’t pay much attention to this lobby. However, it was presumably also clean, shiny, splendid, and luxurious because it was a 5-star hotel. When I reached the 11th floor, I was guided by VEF to the upcoming interview. They sent me to a waiting room with other two applicants. We talked a while and ... from then on, we have another story!



Every time I think of this event, I always smile to myself and say thank you to that kind lady on the 11th floor of the wrong building. My face on that day probably looked strange. Anyway, it was an interesting experience. At least, I will never confuse these two buildings again. Moreover, I learned some lessons: don't be afraid to ask questions and always allow extra time to arrive for an important event.

Somebody told me that the VEF Fellowship is a very long and exhausting process. I must say that I do agree, but it is all worthwhile! People need to grow, and each experience in life is an invaluable present. The more challenging the obstacle, the more you learn when you overcome it. I consider the VEF Fellowship to be an obstacle of that kind, and I really learned a lot through the application process. People may ask why I chose this story. I did so in order to encourage future applicants to relax and think of the VEF Fellowship as a journey or a trip rather than a competition. They have nothing to lose and everything to gain.

Dream Journey

Le Thuy Chau

2012 VEF FELLOW

*Seeking a Ph.D. in Food Science and Technology
at Cornell University*



Le Thuy Chau dedicates her achievement today to her beloved grandma and to her dear friend (next page), whose memory will live on and will always be the inspiration for her work in the future.

Soon enough, I will embark on a journey to my new school in New York to pursue a Ph.D. program under VEF sponsorship. The journey has been long and has required a lot of preparation and hard work. Many stories and memories also made this an unforgettable journey for me.

On this day, if there were one person with whom I would have liked to share my experiences and achievements, that person would be my grandma. She has always been one of the most important persons in my life. Having led a large family through two brutal wars in Vietnam, her strong and independent character inspired me to become the person I am today and the person I hope to become. The night before my

interview with VEF in August of last year, my grandma woke up in the middle of the night to find me still awake. She asked me why I was up so late and I told her I had to read some articles in order to prepare for the interview the

next day. She sat down next to me in silence while I continued to study. Although we did not talk much that night, when she was there I felt a sense of peace next to the person who had always been there for me ever since I was born, a bond that I could probably never find anywhere else in this world. Those precious moments were one of the last memories I had of her. My grandma passed away three weeks after that, even before the results for the interview were known. I had passed the challenging interview and was selected for the next round of the VEF Fellowship competition, namely, to apply to U.S. universities. While I continued on my journey, my grandma was not there to witness my progress anymore. Today the gate to one of the most prestigious universities in the United States has opened to me. I just hope somewhere out there, my grandma will be happy to see my progress and will smile at me just like in the old days.



The second story I would like to share also happened during my journey to VEF while waiting for admission results from U.S. universities. In early February of 2012, I received the news that my childhood friend from Vietnam went to Singapore for cancer treatment. She was diagnosed with stomach cancer. I met her again in the hospital after many years of being apart. She greeted me with a warm smile on her face. After all these years, she still had the same beautiful smile that was always so unforgettable. This was not the first time that cancer had struck my relatives

In memory of my dear childhood friend, Hoang Thanh Huyen. I will always keep her memory in my heart as a reminder never to give up on my mission to study this cruel disease that has taken away my beautiful friend in the best years of her life.

and the people that I knew, but it was the first time that cancer struck a friend who was my age. Sadly, nothing much could be done for her as the cancer had progressed to the final stages. My friend returned to Vietnam after two weeks and she did not survive for long after that. "No one wants to die. Even people who want to go to heaven don't want to die to get there," noted Steve Jobs in his Stanford commencement speech. I know it was hard for her to accept leaving everything behind at her young age. While I continued to go further and live my dream, my friend lay down forever, like a beautiful rose that withered too early. Somehow I believe there is a reason that I met her again at this moment; I believe it consolidated the direction I chose in cancer research prevention during the next few years. I know the road ahead is still long and challenging, but I will always keep her memory in my heart as a reminder never to give up on my mission to study this cruel disease that has taken away my beautiful friend in the bloom of youth.

"Memory is a way of holding on to the things you love, the things you are, and the things you never want to lose." (Kevin Arnold, *The Wonder Years*). I dedicate my achievement today to my beloved grandma and to my dear friend. Their memory will live on and will always be an inspiration for my



At the VEF fellowship presentation ceremony in June with my family and my uncle, who taught me English when I was a little girl. "I will never forget your lessons in those old days, they brought me to new lands and opened the door to a great new life."

work in the future. I also owe this achievement to my beloved parents for all their sacrifices. No words can express the unfailing support and valuable lessons that my parents have given to me.

Furthermore, I dedicate this achievement to my first and most devoted teacher, my uncle, who began teaching me English when I was six years old. During my childhood, I recall coming to his house to study English together with his

grandchildren and my cousins. Realizing the importance of English to our future, my uncle's days of retirement were devoted to teaching us English without any financial reward. He had great insight and was totally ahead of his time since few children of my age had the opportunity of learning English, the language of science, the key that opens gates to the outside world. I excelled in English, and the lessons I received from my uncle then are the foundation for my competency in English now and for what I have achieved so far. He always taught me to study hard because only education could lead me to a brighter future and permit me to help many other people. Today I am so thankful that at the age of 80, my uncle still can witness my advancement into higher education to realize my dreams.

I am also grateful to my professors who provided their truly kind support for my journey to graduate school, and who inspired me to live a life dedicated to hard work and sacrifice for the welfare of humankind through scientific research.

Today I find myself writing this while listening to the song "One Man's Dream," performed by the pianist Yanni. Throughout my application to VEF, this song inspired me many times, especially when I was writing my Statement of Purpose. I believe that each of us has a dream, and I am thankful that VEF exists to help so many passionate students realize their dreams of higher education in the United States, which will contribute to the welfare of our country, Vietnam, in the fields of science and technology. As Mark Twain wrote, "Twenty years from now you will be more disappointed by the things that you didn't do than by the ones you did do. So throw off the bowlines. Sail away from the safe harbor. Catch the trade winds in your sails. Explore. Dream. Discover." I believe that this quote sums up my motivation and that of other VEF Fellow friends. I would like to wish all my friends in the new 2012 VEF Fellowship cohort the best as we embark on our journey to different graduate schools all over the United States to pursue our dreams.

Dodging Roadblocks on the Road to Higher Education

Nguyen Thi Hieu

2012 VEF FELLOW

Seeking a Ph.D. in Developmental and Reproductive Biology at the University of Hawaii at Manoa



Nguyen Thi Hieu on April 11, 2012, when she graduated from the University of Hawaii at Manoa with a Master's degree

April 11 and May 12, 2012, will always be major milestone dates in my life. May 12 marks the day I received my Master's degree from the University of Hawaii, and April 11 was the day I received notice from the Vietnam Education Foundation (VEF) that I had been awarded a VEF Fellowship to continue my study toward a Ph.D. The day of the graduation, while standing among hundreds of my fellow students waiting to go on stage to receive my Master's degree diploma, my mind overflowed with gratitude for all the people and organizations that had, in different ways, become part of the big "helping hand" that opened doors and gave me the chance to fulfill my dream and earn a degree in higher education. These include my poor but very hard-working parents, all my family, my professors throughout my education, the Vietnamese government "Tra Vinh-100 Project," my mentors and advisors at the East-West Center, my host families and friends in Hawaii, and most recently, VEF, which is providing me with another "bridge of life" to enable me to complete my

educational journey. Without the above-mentioned helping hands, higher education would have been a dream beyond reach for a village girl like me.

I was born and raised in a very remote village area of Tra Vinh province in which women seldom have access to higher education. Indeed, I was the only girl who had the opportunity to go to school in my village at my age. I woke up at 5 a.m., waded across a river with a change of clothing wrapped in a plastic bag on top of my head, and rode my bicycle at least 10 kilometers to go to school every day.

This, in hindsight, prepared me to be strong and to know what I needed to do at an early age. After completing high school, I obtained an “equivalency” degree in Agronomy from an extension program at Can Tho University that was offered in Tra Vinh

Province. Additionally, I continued my studies and got a pharmaceutical certificate at Tra Vinh College of Medicine. Then I got a job as a lecturer in biology at Tra Vinh University.

I woke up at 5 a.m., waded across a river with a change of clothing wrapped in a plastic bag on top of my head, and rode my bicycle at least 10 kilometers to go to school every day.

Sadly, my equivalency degree from Tra Vinh created some real challenges. Although officially recognized, an equivalency degree was perceived to be inferior to a regular degree by my peers. But this stigma did not discourage me. It actually motivated me to be a better teacher and to be more creative in my pedagogy. I researched and designed new methods that I could apply to my classroom lectures in order to help students learn more effectively. I won second prize for applying innovative teaching methods and third prize for designing models and tools for teaching at an “Excellent Study and Excellent Teaching” competition that was held by Tra Vinh University. I was determined to overcome these disadvantages so that I could help poor students in my village gain access to education in the same way others had helped me.

Outside my working hours at the university, I often spent time and my limited savings to study English. I also worked as a physician's assistant to earn supplemental income. At that time in my life, going abroad to study seemed like an impossible dream. Fortunately, my dream became a reality in 2009 when I was awarded a Fellowship by the Tra Vinh-100 Project, operated jointly with the East-West Center, for a Master's degree at the University of Hawaii. When I got the Fellowship, I considered which subject would be most valuable to my fellow Vietnamese in my poor village and Tra Vinh Province. Since biology has a close relationship with medicine and plays an important role in the improvement of healthcare that the people in Tra Vinh need badly, I chose the biomedical science program in developmental and reproductive biology (DRB) for my Master's program, housed in the Department of Anatomy, Biochemistry, and Physiology at the John A. Burns School of Medicine. I felt that DRB would equip me to serve women and children, who are most often deprived of health services. But choosing this specialization posed a difficult challenge for me, since I was not prepared for this course of study. Again, this immense challenge, like all the challenges I faced before, only motivated me to work harder. However, shortly thereafter, I had to deal with another unexpected challenge. Only a few months before my departure for Hawaii, my father, who was the only source of income for my family, was killed in a traffic accident while riding his motor bike. Apart from the immense challenge of preparing for my new study, I now realized that the whole livelihood of my family rested on my shoulders and that I would have to succeed in school so that I could return to take care of the family. Another challenge, yes, but it also motivated me not to give up. My entire family and my husband always have encouraged and supported me, even during the initial challenging year of study in Hawaii.

When I began graduate school, I was not academically prepared and did not know English well enough for this highly specialized study. Biomedical science is a very new field in Vietnam, and I had very little background in these diverse areas of study, including developmental and reproductive biology, cell and molecular biology, and anatomy. Laboratory rotations required me to use techniques that were unfamiliar to me, but I never gave up. I tried to make up deficiencies by reading lots of medical books as well as articles on biomedical science. I attended science seminars at my U.S. university every Wednesday even though these seminars were not required. I also worked

and volunteered in several laboratories to gain greater knowledge. I studied until 2:00 or 3:00 a.m. every day. My hard work paid off—I earned my Master’s degree.

In the months leading up to graduation, my professor, Dr. Steven Ward, told me that he felt that I had the potential for Ph.D. study and that he would like to take me as a graduate assistant in the Ph.D. program. Unfortunately, he did not have funding to support me. I was very sad and anxious at the same time and did not know what to do. I loved my research and wanted to learn more. I wondered whether my knowledge would be enough to teach students and to do my own research when I returned to Vietnam and resumed my teaching position at Tra Vinh University. Dr. Ward encouraged me not to give up and to search for fellowships. I had heard about the VEF Fellowship program through my friends, so I was well-prepared to apply. The VEF Fellowship was my only hope. I applied through Process B since I had already been admitted to the University of Hawaii on my own. On the day of the telephone interview, I stayed up all night because I was so afraid that I could not answer the questions posed by the interview committee. Then, after the phone interview, I worried even more about the final VEF decision. I could not focus on my research, nor could I sleep. I lost 8 pounds. I will never forget my feeling on the morning of April 11, as I waited anxiously for VEF’s email. I had been waiting since 6:00 in the morning (it was already noon), but I did not get any email from VEF. I was in despair. I checked my email again and again throughout the day. Finally, in the afternoon, I saw an email from VEF. My heart raced; I closed my eyes and breathed deeply again before I read the email. When I saw the word “Congratulations,” I was overcome with joy. I whispered out loud “Thank you VEF” for giving me the opportunity to continue with my life-long educational journey.

As I sit and write down my story, I am deeply aware that the kindness and generosity of all the people and organizations mentioned above have made it possible for me to continue my educational journey. On my part, besides working harder, I pledge to all the people and organizations who have been part of the big helping hand that I will use my knowledge upon completion of my Ph.D. to continue giving the gift of life-changing education to future generations, who need the same helping hand from me. I want to be a gift that keeps on giving to others.

My Unusual Journey to VEF

Nguyen Anh Duc

2011 VEF FELLOW

Pursuing a Ph.D. degree in Civil Engineering at Virginia Polytechnic and State University

Since I am a Process B¹ Fellow, my story is very different from that of most other Fellows. However, I have experienced two years of great difficulty and great joy, ranging from discouragement, and even despair, to extreme happiness. These last two years have changed my life dramatically, so I feel that I must tell my story and get everything off my chest. Most importantly, there might be other VEF candidates in the future who will feel reassured and encouraged after they read my story. They have just as good a chance to succeed!

There have been moments in my life when I felt like I had no more courage. After graduation, my cherished dream of studying abroad almost vanished. First of all, my parents were elderly (my father was 53 when I was born), and my father suffered two serious heart attacks in the same year. Since my parents wanted to see me settled and secure while my father was still alive, I got married, even though I was rather young. My little son was born soon after that. He looked so beautiful and he meant the world to me. But as he grew, we realized that something was wrong. I almost fell to my knees when the doctor told me that my son was autistic. That was that! How could I ever achieve a normal life and career, let alone my big dream to study abroad?

¹ *The VEF Fellowship Process B allows for Vietnamese who have been admitted to a U.S. university on their own to apply for a VEF Fellowship.*

During the months that followed, I began working just to earn money. I hoped that money would cure my beloved family and help me forget every unhappy thought. I was wrong. My father was very brave as he fought with,



Nguyen Anh Duc with his son in front of the White House, Washington, D.C., United States

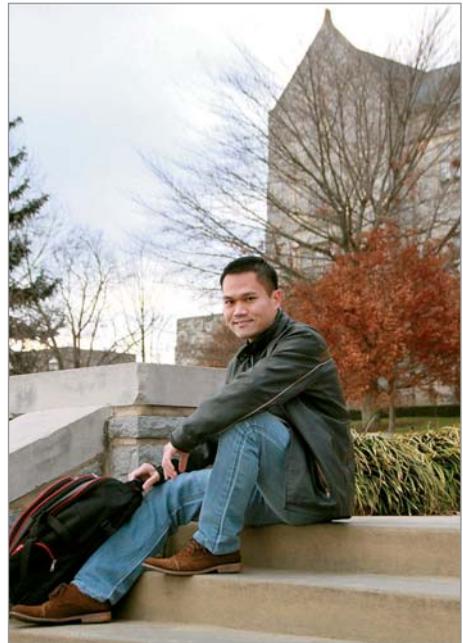
and recovered from, illness, and my little son responded positively to treatment. But why did I not feel better? Why could I find no inner peace? Something was preying on my mind and suffocating my soul, but I didn't know what it was. I was caught up in the fast pace of life.

Then, in 2009, an epidemic of petechial fever broke out in Hanoi and some of the northern provinces of Vietnam. I must have contracted the disease when working at a construction site. I spent five days in a hospital bed hooked up to an IV. They turned out to be the most peaceful days I have ever experienced! Every day, I did nothing but look at the ceiling, thinking about my situation. Through this difficult time, I realized what I had to do with my life, and how I needed to brush the dust off my dreams. I could not stay the same any longer. I realized that I must nurture my intellectual gifts and that I must help my country build its infrastructure by travelling to, and studying in, the most developed country in the world, the United States. I soon discovered that a VEF Fellowship would provide a chance to attend the most prestigious schools and give me the financial aid that I would need. Furthermore, the United States would be the best possible place for my little son to get treatment if I could bring him along. I decided that nothing would deter me anymore.

But I had some serious problems. It was December of 2009, and the deadline for the VEF Process A was early April of 2010. This meant that I needed to complete my entire application in three months, which would also include taking the GRE and TOEFL, about which I had only a vague

understanding. At that time in Vietnam, the GRE test was only held twice annually, and I had to take it in February of 2010. Although I got a fair GRE score after an incredibly short preparation time, I simply missed VEF's deadline. Fortunately, I knew that there was still a Process B. This Process is quite challenging because applicants have to be admitted to a U.S. university without help and without the letter of recommendation from well-known professors that Process A applicants receive as a result of a face-to-face interview. I went through the grueling U.S. university application process just like everyone else. After waiting for a long time in despair, I finally burst into happiness when I got admitted to several famous universities. That very day, I was filled with confidence as I pressed the button to submit my application to the VEF Process B. The happiest moment of those two long years came when I received an email from VEF starting with "Congratulations. . ." Yes, my dream had come true, and I knew that I deserved it.

Becoming a VEF Fellow has allowed me to achieve my dream, yet there was a time when I lost all hope and let myself sink into despair. For you who are reading this story and who have lived through difficult situations, do not give up on your dreams! There will be a way out, so keep on trying. Now that I have written this, I once again feel the peace that I once experienced while in the hospital!



*Nguyen Anh Duc, 2011 VEF Fellow,
on Virginia Polytechnic and State University
campus,
December 2012*

From Nghe An to Nanoscience



*Nguyen Huu Phuoc Nguyen, 2007 VEF Fellow
attending the University of Michigan*

Nguyen Huu Phuoc
Nguyen

2007 VEF FELLOW

*Seeking a Ph.D. in
Mechanical Engineering at
the University of
Michigan*

I was born in a very rural and mountainous area of the Nghe An Province. The area was so underdeveloped that electricity was only available around 1995, and in the early years I had to study by the light of a kerosene lamp. Recognizing that the

limited resources would limit their children's chances of getting a good education, my parents moved four times in twelve years in order to finally settle in Vinh City, the capital of the province. We started at the upper part of the biggest river in the province, Lam River, and ended up almost at the river's mouth. Looking back, I know for certain that I was deeply inspired by my parents' constant desire to provide a home where the children could receive the best possible education. My parents were both teachers, and their patience and their commitment to hard work and constant improvement have been imprinted on my character. I studied hard in my high school in order to get into the Hanoi University of Technology, one of the best universities in Vietnam. But that was still not enough—I dreamed of traveling across the oceans to study in foreign lands.

In my first year of college, I worked really hard on improving my English, which is very important for someone who wants to study abroad. In response to my hard work, I was awarded one of the ten Petronas Scholarships, and thus was funded to complete my undergraduate degree at the Universiti Teknologi PETRONAS, Malaysia.

Moving from one of the most underdeveloped areas in Vietnam to a modern city like Kuala Lumpur helped me to realize that human development, just like a tower, needs to be built upon a sound foundation. I really enjoyed discovering the diversity of the Malaysian culture. From the

colorful Festival of Light of the Indians, the amiable Open House during the Day of Celebration of the Malay, to the animated Chinese New Year, I found the cultural essence of virtually every country in Asia, and I even took some courses to learn the Malay and Mandarin languages. This experience in a multicultural environment helped prepare me for study in the United States.

Although my international experience helped me adjust to life in the United States quickly, the transition to graduate school and research was not so easy. I had no research experience when I began my Ph.D. program and I did not have a clear idea about the kind of research I would like to do. I thought I wanted to work on control systems because I liked the applications in robotics and automation, but honestly I didn't know much about other options. I took courses and did some research in control systems during my first two years at the University of Michigan, but at the end of the second year, I realized that



Nguyen Huu Phuoc Nguyen in front of the U.S. Capitol when attending the 2009 VEF Fellows and Scholars Conference in Washington, D.C.

this research did not really match with my interests. Fortunately I kept an open mind, and after serious consideration, I finally found my current research project in nanoscience that matches well with my interests and my personality.

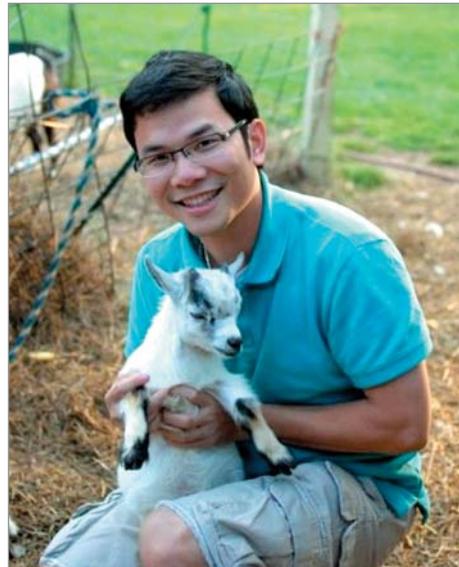
Since that moment, I have thoroughly enjoyed doing research.

My parents were both teachers, and their patience and their commitment to hard work and constant improvement have been imprinted on my character.

VEF was a great help in getting me into a good graduate program, both by leveraging the credibility of VEF during the application process and by providing funds. If not for VEF, I don't think I could have gotten into my current program. Since I believe in VEF, I have helped three other Vietnamese students to apply for the Fellowship and two have succeeded. The VEF annual conferences have given me an amazing opportunity to network, not only

with other Fellows and Scholars but also with government officials and business people from Vietnam and the United States. Overall, my time at the University of Michigan has been a life-changing experience for me. The exposure to a world-class education, as well as to American culture, has enriched my life as a researcher and as a person.

For me, success is not measured by the degrees I earn or by material wealth, but it depends instead on how many people are better off because I have lived. Because of this belief, I've always been active in volunteer work. Notably, as a VEF Fellow, I founded the Nghe Tinh Abroaders Association in 2008 to promote and facilitate studying abroad for the students in my home region,



including the two less developed provinces of Nghe An and Ha Tinh. The Association now has more than 200 members from all over the world, including about ten VEF Fellows. Every year, we come back and organize a conference called Truyền Lửa or “Passing the Torch,” to provide information and inspiration about studying abroad to interested students and parents in the region. As a result, the conference has grown from 150 participants the first time to more than 1,000 participants last year. At that meeting, we proudly included VEF as well as many other fellowship programs, companies, and the local government. Aside from providing information and inspiration, the Association also started a foundation this year to provide funding and mentorship to underprivileged students, who are trying hard to overcome their challenges. I am proud to be involved in this meaningful work while I am a VEF Fellow, but I know this is just the beginning. With the experience I have had thus far in the United States, I believe I will be able to contribute more to Vietnam once I return home.

Research on the Cutting Edge

Dang Huy Cuong

2004 VEF FELLOW

Completed a Ph.D. in Physics, Brown University



*Dang Huy Cuong
VEF 2004 Fellow
completed a Ph.D. in Physics
at Brown University in 2010*

On April 29, 2012, I published an article with my advisor, Prof. Arto Nurmikko, in *Nature Nanotechnology* that generated some real excitement in photonics: “Full color colloidal quantum dot lasers at record low thresholds.” I did this research for my Ph.D. dissertation two years earlier, but the results had been postponed for publication because of the patent application process and discussions on the material transfer agreement (MTA) between Brown University and the high-tech company QDVision, Inc.

I found it very interesting to deal with the reporters. The journal editors notified the journalists five days in advance of the publication. We had to choose a select number of highly esteemed, academic journals such as *Society for Optics and Photonics (SPIE)*, *Photonics*, *Physics World* and *Laser Focus World* and to reject a number of interview requests from many high-tech, commercial sites including *CNET* (<http://www.cnet.com>). The journalists prepared articles with an embargo as

requested by the *Nature Nanotechnology* editors. At the publication time, 1:00 p.m. on April 29, 2012, the embargo lifted and then “Boom!”-- the news spread everywhere. Many more interview requests came after that. Many of the most prominent experts in the world commented on our work in the news articles and noted that they are waiting to see what we do next.



*Dang Huy Cuong works on his project,
“Full color colloidal quantum dot lasers at record low thresholds.”*

Aside from the pure scientific value, this is a real breakthrough in laser technology. It could have a huge impact on technology and, as one can imagine, on the development of display technology nowadays. This is why it has drawn so much attention. And not just journalists, but even normal people also have contacted me to chat, to talk, and even to propose some ideas for the next steps in their construction engineer imaginations.

I started conducting research at Brown University during the second year of graduate school in a lab that was working on an area of study that was new to me—semiconductor and light emitting devices. This study was quite different from my magnetic materials background in Vietnam, but my research

experience in Vietnam helped me to win a VEF Fellowship, to gain acceptance at a prestigious U.S. university, and to join a well-known research lab at Brown. I spent one and a one-half years in my new lab gaining technical skills in device fabrication, nanofabrication, nanotechnology, and experimental measurement. While this work was time consuming, I gained a broad range of skills that probably accelerated my research later. How exciting it was to see the light (blue, green light) from my first light emitting diode (LED)! My advisor, Professor Arte Nurmikko, was astonished when he looked at the laser, a very practical red laser beam that is the starting point of the new laser technology covering all visible

Many of the most prominent experts in the world commented on our work in the news articles and noted that they are waiting to see what we do next.

color for the first time ever. It was only possible through nanotechnology. Imagine that you have a rainbow laser pointer in your hand for a presentation at a VEF conference—you can use a different color for each slide. This is just one possible way to apply this technology. It can be utilized for many broad applications of light-emitting devices: for light bulbs, TVs, projectors, displays, you name it! Not only are we excited—the whole world of science and technology is excited too.

After publishing the results, I contacted the Center for Material Science at the Hanoi University of Science, Vietnam National University, to initiate collaborations as part of my preparation to return to Vietnam. Since I know that they are doing research on the materials I have been using, the work back in Vietnam will be exciting for me. Given the current equipment they are working on and their current research interests, I will not need to find too much financial support in order to continue my research interest. My U.S. connections in both academia and industry will continue after I return to my country, which will be helpful to me and to Vietnam. I have spoken here about academic success, but it is important to recognize all the people who have

helped me get to where I am. My family members have been great supporters and my wife, Hai Hoang, and my daughters, Sophia Dang and Alisa Dang, have allowed me to enjoy a family life that has served as a counter-balance to my time in the U.S. university's research laboratories. My mother, Hoa Dang, and my father, Thang Dang, have always supported my career. They came to the United States to help take care of Sophia when I was in my last year of graduate school. My father was excited when I showed him the recorded video of my break-through laser technology in nanomaterials and nanotechnology, but he could not imagine its impact until he could Google the results two years later in Vietnam. I gratefully thank all my family for their unconditional support. Without their help I could never have achieved such success.

Aside from my family, VEF has been another great supporter. The Fellowship allowed me to work at world-class research laboratories. A good graduate program at a top U.S. university provided the opportunity for my development as a researcher. More than anyone else, VEF made it possible for me to start my adventure in the United States. The funding was very important. During the first two years, under VEF's funding, I was free to try a few different research labs and work with a couple of professors before I had to choose the one I liked the most. The annual VEF conferences provided the opportunity to meet other Fellows, to talk with top scientists and other leaders in science and academia, as well as to gain many soft skills that we all need in order to succeed.

I am now wrapping up my research in the United States and expect to have another high-profile journal publication. Just wait and see! My journey in the United States as a graduate student, a postdoctoral research associate, and a VEF Fellow has been a wonderful experience. I am looking forward to my new journey in Vietnam.

If you would like to learn more about this research, look on the Internet using the following keywords: Cuong Dang Laser.

Back in the Lab

Pham Bao Yen

2004 VEF FELLOW

Completed Ph.D. in Biochemistry, University of North Carolina at Chapel Hill

Ever since I was in high school, I have been interested in biology, chemistry, and medicine, and I have always wanted to study the biochemistry of life at the molecular level so that I could apply this knowledge to medical research. In my second year in college, I started to think about studying abroad and pursuing an academic research career. My best friend in high school went to the National University of Singapore and urged me to apply there as well. Instead, I decided that the United States, with its large number of excellent educational and research institutions, would be the best place to apply, especially in fields of biomedical research, like biochemistry and molecular biology. My field of specialization combines these three areas. During my final year in college, I had the opportunity to do research in the field of biochemistry and molecular biology. This provided me with the experimental skills and preparation that I needed in the laboratory.

When I arrived at the University of North Carolina at Chapel Hill, I was very surprised by the different cultures coexisting in the United States. However, I experienced some cross-cultural difficulties at first. English communication posed some challenges. I had learned terminology and the names of pathways, chemicals, types of equipment, etc., in Vietnamese. At first, I could barely recognize them in English. But the most surprising incident involved an examination during my first semester at UNC, as the U.S. University is known. In Vietnam if you give the wrong final answer, you do not get any credit for your work. I didn't realize that all the explanations and calculations counted in the United States, so I got an F on the first exam. After that, I figured out how things worked!



Pham Bao Yen (first row, second from right) with her research colleagues at the Hanoi University of Science, Vietnam National University

At UNC, I had a very helpful and wise thesis advisor with whom I still communicate by email. I have also stayed in touch with my lab mates and the other U.S. professors, who were members of my Ph.D. committee. It is my hope that I will be able to maintain these contacts so that future collaborations will be possible.

After completing my VEF academic program, I returned to Vietnam, and at present I am a researcher at the Hanoi University of Science, Vietnam National University, Hanoi. I am involved in several research projects and am working on a project of my own in the field of molecular biology. I was surprised by the modern equipment in the laboratories, which is a positive thing, but on the other hand, the availability of chemicals has posed some problems in my research. I am grateful that I am able not only to do high quality research but also to write grants and papers. This opportunity would not have been available to me without study in the United States. Although my position is in research primarily, I do have teaching responsibilities. At

this point I teach two to three undergraduate courses per semester. As a supporter of the VEF program, I have helped several students, some of whom received the Fellowship award.

VEF organizes an Annual Conference for Fellows and Scholars, who are in the United States. I was heavily involved in these conferences and served on the planning committees more than once. Now that I am back in Vietnam I have other opportunities. VEF organizes an Annual Alumni Conference as well. The Alumni conferences in Vietnam are helpful in networking with other Alumni and in finding new collaborations, so I look forward to seeing many of them at the next conference in Nha Trang in June of 2013.

My Heart Remains in Vietnam!

Tran Van Xuan

2004 VEF FELLOW

*Completed a Ph.D. in Mechanical Engineering,
University of Michigan*



Tran Van Xuan (left), training workshop participants on the use of Code_Aster software in Ho Chi Minh City, August 2012

In August of 2012, the Vietnam Education Foundation organized its annual Alumni Conference for Fellows and Scholars in Danang. Several sessions were held on the University of Danang campus, and all the VEF Alumni attending the conference visited departments and laboratories that conformed to their research interests. Dr. Tran Van Xuan would not normally have been able to attend the Alumni Conference because VEF does not support

international travel—he currently lives in France. However, he was at the International University in Ho Chi Minh City where he was providing a free three-day workshop on Code_Aster, an open-source computational software devoted to thermo-mechanical finite element analyses, developed at his company EDF (formerly known as Electricity of France). Participation in this kind of workshop in Europe normally would cost US\$2,500 per person. Xuan organized this workshop, and since he was in the country, he was able to attend the VEF conference in Danang with other Alumni who had returned to

Vietnam after completing their Master's or Ph.D. degrees. Xuan's great value to Vietnam's scientific development was demonstrated immediately when he visited the laboratories associated with mechanical engineering at the Danang University of Technology. He began brainstorming with faculty and graduate students about how his agency in France and the department could collaborate together on projects relating to fracture and fatigue mechanics testing. While no project has come out of this interaction at present, Xuan plans to facilitate a future Code_Aster workshop at the University of Danang, even if he has to raise the funds himself.

Xuan is currently working for the EDF R&D in France. Since VEF Alumni have an obligation to return to Vietnam and contribute to science and education there, his inclusion in this collection of stories may be a surprise initially. However, Xuan's engagement with Vietnam's scientific and educational development demonstrates that his heart is in Vietnam, even if his head is abroad acquiring knowledge and skills that he hopes to bring back to his country one day.

When Xuan was a high-school student in Tay Ninh, a remote province in the South, he decided to pursue an academic career. Since he was raised by a mother with three children (his father passed away when he was ten years old), he concluded that study was his only option to escape poverty. His hard work paid off. He was able to pursue a B.S. degree program at the Department of Aerospace Engineering, Ho Chi Minh City University of Technology. In his third year there, he passed the entrance examination organized by professors from the Ecole Polytechnique (Palaiseau, France) and succeeded in obtaining the Eiffel Excellence Scholarship from the French government to continue his B.S. and M.S. degrees in mechanics at this prestigious engineering university in France.

In 2003, Xuan undertook an internship at the University of Florida, Gainesville. After four months doing research in Florida, he decided to apply for graduate study in the United States. After receiving a good engineering background in France, he wanted to understand another way of working and thinking, and he believed that a U.S. education would complete his earlier

preparation under the French system. Eight years later, he can confirm that this was the right decision. Xuan was exposed to the educational systems in Vietnam, France, and the United States, so that he could take advantage of the strengths of each and mitigate their weaknesses.

At the University of Michigan, Xuan was amazed by the library where he could find any document he needed, 24 hours per day. He was also impressed by the creative and unbridled thinking in the United States and appreciated the conviviality that exists between the professors and students. Additionally, he really liked the



Tran Van Xuan poses in front of the Seine River in Paris.

courses that provided practical applications with all kinds of homework that pushed him to work hard from the very beginning of the term. Xuan decided to study mechanical engineering because it has extensive applications in many different industries. Most structures and components in service are subjected to repeated loading conditions that can cause accumulated failures due to a phenomenon called “fatigue.” Motivated by the usefulness of the subject to assure structural integrity and durability, he specialized in fracture mechanics and fatigue. Among other things, Xuan studied fracture and micromechanics for fibrous composites, failure analysis, and rheology and fracture.

Xuan’s Ph.D. thesis, “Strength and Fatigue Failure of Spot Friction Welds between Similar and Dissimilar Sheet Materials,” was conducted in collaboration with the Ford and Mazda motor companies. The results of his five years of graduate study were published in 11 journal articles (of which he is the first author of 10) and 19 conference papers or posters presented

worldwide. One of these publications was the basis for receiving the 2012 Arch T. Cowell Merit Award, established in 1965 by the Society of Automotive Engineers (SAE) International in recognition of outstanding contributions to the literature of SAE International, advancing the technology of self-propelled vehicles. Since he left the United States, Xuan has kept in contact with a number of colleagues from the University of Michigan and has met with them at international conferences. They regularly exchange research ideas via telephone and Skype. Xuan has also served as a reviewer for several journals in his field of specialization. This service has allowed him to keep up with the work of his collaborators. He returned to the University of Michigan twice—in April of 2010 and in September of 2012—and plans to write research proposals with faculty there during the next year.



Tran Van Xuan's graduation from the University of Michigan with a Ph.D. degree in Mechanical Engineering

In his professional career, Xuan likes a mixture of teaching and research on industrial applications. This allows him to apply what he has learned and discovered to practical challenges and technical problems. It is a great feeling to find solutions for applications in machines and structures, but in any case, as he so aptly notes, “Knowledge is the only thing that increases while sharing.” He also likes to train future engineers and researchers and to transfer knowledge and skills to them. At his current job, Xuan is a researcher for fundamental long-term projects, an engineer for short-term projects, and a trainer for future engineers and researchers. This position allows him to work on challenging technical problems while still maintaining contact with the academic world via conferences, collaborations, and organizing workshops. According to him, in the academy, researchers can explore any subject in as much detail as desired. However, in industry, researchers are accountable for

providing engineering services. They must work on four or five projects at the same time and, to be successful, their knowledge should be broad enough to deal with a large range of applications. They also require many other important skills, such as knowing how to multi-task and how to be a team player.

Xuan shares with us that he made his decision to work in France based on personal concerns and on his desire to broaden and strengthen his knowledge by working in industry directly. Also, Vietnam is beginning to construct its first nuclear power plant that will go online in 2014. Since 58 nuclear reactors produce 80% of the electricity in France and they are exploited by EDF, he wants to prepare himself for the future needs of Vietnam. Ideally, he would like to obtain hands-on experience in a nuclear power plant. As is well known, safety concerns in nuclear energy production are much stricter than in other industries. Xuan hopes to be able to contribute more efficiently to the safety of future Vietnamese power plants and to contribute to the formation of future engineers and experts in this field, thanks to his experience at EDF. His current research interests include development of fatigue crack initiation and propagation models, computational fracture mechanics, extended finite element methods, short crack behavior, and industrial applications for structural integrity and durability. He hopes to collaborate closely with his colleagues in Vietnam on these subjects in the future.

Xuan thinks that in Vietnam many things are needed in terms of policy, standards for research groups, infrastructure, and the culture of research. In his view, these apparent obstacles seem to stem from the insufficient links between university and industry. The clients of research proposals in engineering should be industries. It seems to Xuan, and to others he has spoken with, that large Vietnamese corporations do not invest in



Tran Van Xuan in Danang for the VEF Alumni Conference for Fellows and Scholars, August 2012

R&D significantly, but based on his experience at EDF, one dollar of R&D investment can earn back 10 dollars. He believes that both enterprises and universities need to change their relationship and collaborate. Most importantly, industry needs to focus on innovation and R&D, and academic researchers should, in turn, orient their research to the needs of industry. Also, the success of a researcher in engineering should not be measured by the number of published papers, but by how beneficial their discoveries are in improving the quality and safety of products.

The gray matter leaves and the gray matter returns, but most important is the red matter in the heart.

In response to the basic question Will you come back to Vietnam in the future?, Xuan confirms without any hesitation that he will return, most likely when he is sure that his contribution will be more valuable when he is in Vietnam than when he is abroad. After he gains more experience with nuclear power plants or when he finds another excellent opportunity to do something for his country, he will do so. For the moment, he is still working hard and taking advantage of any opportunity he can find to contribute to Vietnam from France. Obviously, he has been planning his return trip strategically.

In any case, Xuan continues his commitment to help other Vietnamese students. He assisted a few students in applying for a VEF Fellowship. Thanks to his current position at EDF, he helped three graduates to get jobs and many other students to get internships. In Vietnam last year, he worked as a research affiliate for the John von Neumann Center of Excellence at the Ho Chi Minh City National University for a project on the optimization of the plastic bottle for a beverage corporation in Vietnam. He still collaborates on this project with a faculty member from the Ho Chi Minh University of Technology. Furthermore, he is still a member of the Dong Hanh Scholarship Association of the Vietnamese students in France that he co-created in 2001 as a means to “pay it forward.” Every year, Dong Hanh gives 250 scholarships of \$125 each.

After 12 years, more than \$200,000 has been sent to Vietnam to help about 2,000 poor students.

Xuan told us that he has begun to understand a remark made by Mr. Pham Duc Trung Kien, the former VEF Executive Director, when talking with a group of VEF Fellows years ago: “The gray matter leaves and the gray matter returns, but most important is the red matter in the heart.”

Unexpected Spin-offs

Dr. Lee H. MacDonald

2008 VEF U.S. FACULTY SCHOLAR

Professor, Colorado State University



Vietnamese students learning how to site and build a sediment fence to measure erosion

When Dr. Lee MacDonald, a professor at Colorado State University (CSU), first decided to submit his application for a Vietnam Education Foundation grant to teach in Vietnam, he had no idea where this teaching experience might lead. Before doing his Ph.D., Dr. MacDonald had spent five years in Japan working for the United Nations University, and in this capacity he had travelled extensively in Asia, but

never to Vietnam. CSU already had a long-standing relationship with Vietnam Forestry University (VFU), as a series of graduate students from VFU had obtained their M.S. and Ph.D. degrees from CSU between 1999 and 2008. It was one of the recent Ph.D.s, Dr. Phung Van Khoa, who brought the VEF U.S. Faculty Scholar Grant to Dr. MacDonald's attention. Dr. Khoa strongly encouraged Dr. MacDonald to apply, as Dr. Khoa thought it would be highly beneficial to the Vietnamese for Dr. MacDonald to teach his lecture and field measurements courses covering land use effects on hydrology and erosion. Dr. Khoa felt that the course materials and infrastructure developed through the U.S. Faculty Scholars program would strengthen this component of VFU and help similar courses to be taught at VFU in the future. Given the emphasis on field measurements, Dr. MacDonald proposed to conduct the classes on site rather than by videoconferencing. While he could estimate the usefulness

of these courses to Vietnam, he had no idea of the numerous spin-offs that would result from just this one semester at VFU in spring 2009.

With respect to VFU, Dr. MacDonald's VEF grant included funds to purchase equipment that could be used for teaching field measurements. He also solicited a series of equipment donations from private companies, so he landed in Hanoi with a considerable amount of equipment purchased in the United States in addition to his teaching materials. As part of its contribution, VFU built a new weather station on campus while the funds from the VEF grant paid for the necessary monitoring equipment. A groundwater monitoring well also was drilled at this site, and a donated water level recorder was installed and left on site with the other equipment. Equipment for measuring stream discharge and water quality also was purchased, and all of this equipment has been used at VFU in different courses and to support graduate research projects.



Vietnamese students learning how to survey a channel cross-section and measure discharge

Part of the in-country orientation in Vietnam for this first group of VEF U.S. Faculty Scholars was a visit to the U.S. Embassy in Hanoi; and the American natural resources specialist at the Embassy noted Dr. MacDonald's background and expertise, and sent out an email to his contacts. This led to an invitation for Dr. MacDonald to help with a USAID project to quantify payments for environmental services in the central highlands of Vietnam. He made two trips to Dalat to help design a program to compare runoff and sediment yields from four small watersheds with land uses ranging from nearly pure forest to pure agriculture. Upon his return to the United States, Dr. MacDonald helped organize the purchase and installation of \$100,000 worth of equipment in these watersheds, and for staff from the U.S. Geological Survey to travel to Vietnam and train local staff in the collection and analysis of runoff and suspended sediment data. Dr. MacDonald then returned in March 2010 to help with a workshop and training course for about 20 scientists from



Dr. Lee MacDonald working with a government official to review available discharge data

all parts of Vietnam. Two staff from Lam Dong province traveled to the United States later in 2010 for additional training, and the results were written up in early 2011¹.

While at VFU, Dr. MacDonald also met with researchers at Hanoi Agricultural University, and his experience with inexpensive methods to measure hillslope erosion led to his involvement with a German-funded project in Son La province. A VFU student, who was taking his classes, subsequently did his Master's degree in conjunction with this project. Dr. MacDonald also became an unofficial advisor to a Ph.D. student from Hanoi Agricultural University (HAU), who is measuring erosion from different land uses, and Dr. MacDonald returned to the project area to help advise several students, who were working on this project for their M.S. and Ph.D. degrees. This has led to his co-authorship on one conference paper², and he is continuing to work with the Ph.D. student from HAU.

Dr. MacDonald also has been invited to serve as an advisor for a number of different research projects at VFU. For one of these projects, he wrote and received a small grant to allow him to offer advice on work in the Mekong Delta, and also to support a trip by Professor Vuong Van Quynh to review some experimental watersheds in the western United States. Dr. Quynh's visit led in turn to another visit to Vietnam by Dr. MacDonald to advise on a project dealing with the quantification of payments to land owners for minimizing erosion in areas upstream of hydroelectric reservoirs.

The primary interpreter for these visits was Ms. Pham Minh Thuong, an English teacher at VFU, and during the study tour she visited several Ph.D. programs in the United States. With funding from the Ministry of Education and Training (MOET), she has now begun a Ph.D. in teaching English as a second language at the University of Washington. Two other students from his

classes at VFU have obtained fellowships for advanced degrees in Japan. Dr. MacDonald continues to maintain contact with them, and is co-author of a draft paper from the first of these students, and is now planning a visit to Japan to help work with the second student on a road erosion study.

After Dr. MacDonald's visit, VFU applied for and received funding to initiate an Advanced Curriculum in Natural Resources Management. This is a new degree program that is modeled after the corresponding degree program at Colorado State University, and is being taught in English. Over the seven-year duration of this project, VFU will send nearly 20 faculty members to CSU for 4-12 weeks to develop courses that they will then teach in Vietnam. CSU will send up to 15 faculty members to Vietnam for a month to teach their courses in this degree program. Dr. MacDonald is serving as the coordinator for this project, and travelling to Vietnam on an annual basis to review and coordinate this program. He also is slated to teach at VFU in 2013, 2014, and 2015 for this degree program. The annual trips to Vietnam also are providing him with the opportunity to: 1) develop joint research projects; 2) advise graduate research projects; and 3) generally work on strengthening the capability of VFU and its international linkages.

The bottom line is that the initial Vietnam Education Foundation U.S. Faculty Scholar grant has led to a series of collaborative research and training projects. Taken together, the additional benefits of these activities are much greater than the initial grant to teach for one semester! The USAID project provided significant equipment and training to Vietnam. Vietnam Forestry University has instituted an Advanced Program in Natural Resources Management that is greatly increasing its capacity, especially with respect to being able to deliver a degree program in English. Dr. MacDonald has contributed to a series of research projects, and there is now a pathway for students from VFU to obtain advanced degrees on



Dr. Lee MacDonald teaching students in Vietnam to make weather observations (temperature, rainfall, evaporation, etc.)

topics related to land use effects on runoff and erosion through the Tokyo University of Agriculture and Technology in Japan. Inexpensive sediment fences are now a known technology in Vietnam for measuring hillslope-scale erosion. If these are just some of the additional spin-offs from the VEF grant, one can only imagine the extent and duration of all the future benefits accruing from the growing number of students that were touched by the initial VEF project.

¹ MacDonald, L.H., 2011. *Quantifying payments for forest environmental services, Lam Dong Province, Vietnam. Report prepared for Winrock International. 50 pp.*

² Tuan, Vu Dinh, T. Hilger, E. Shiraishi, G. Clemens, L. MacDonald, and G. Cadisch, 2012. *Erosion Mitigation on Steep and Fragmented Lands in Northwest Vietnam: Potential of Soil Conservation for Maize Cropping. Paper presented at Conservation Agriculture and Sustainable Upland Livelihoods: Innovations for, with and by Farmers to Adapt to Local and Global Changes. www.conservation-agriculture2012.org. 10-15 December 2012, Hanoi.*



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